

DEPARTMENT OF ENERGY OVERSIGHT: WHAT
IS NECESSARY TO IMPROVE PROJECT MANAGE-
MENT AND MISSION PERFORMANCE?

HEARING
BEFORE THE
SUBCOMMITTEE ON OVERSIGHT AND
INVESTIGATIONS
OF THE
COMMITTEE ON ENERGY AND
COMMERCE
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRTEENTH CONGRESS
FIRST SESSION

JULY 24, 2013

Serial No. 113-76



Printed for the use of the Committee on Energy and Commerce
energycommerce.house.gov

U.S. GOVERNMENT PRINTING OFFICE

86-600 PDF

WASHINGTON : 2014

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON ENERGY AND COMMERCE

FRED UPTON, Michigan

Chairman

RALPH M. HALL, Texas	HENRY A. WAXMAN, California
JOE BARTON, Texas	<i>Ranking Member</i>
<i>Chairman Emeritus</i>	JOHN D. DINGELL, Michigan
ED WHITFIELD, Kentucky	FRANK PALLONE, Jr., New Jersey
JOHN SHIMKUS, Illinois	BOBBY L. RUSH, Illinois
JOSEPH R. PITTS, Pennsylvania	ANNA G. ESHOO, California
GREG WALDEN, Oregon	ELIOT L. ENGEL, New York
LEE TERRY, Nebraska	GENE GREEN, Texas
MIKE ROGERS, Michigan	DIANA DEGETTE, Colorado
TIM MURPHY, Pennsylvania	LOIS CAPPS, California
MICHAEL C. BURGESS, Texas	MICHAEL F. DOYLE, Pennsylvania
MARSHA BLACKBURN, Tennessee	JANICE D. SCHAKOWSKY, Illinois
<i>Vice Chairman</i>	JIM MATHESON, Utah
PHIL GINGREY, Georgia	G.K. BUTTERFIELD, North Carolina
STEVE SCALISE, Louisiana	JOHN BARROW, Georgia
ROBERT E. LATTA, Ohio	DORIS O. MATSUI, California
CATHY McMORRIS RODGERS, Washington	DONNA M. CHRISTENSEN, Virgin Islands
GREGG HARPER, Mississippi	KATHY CASTOR, Florida
LEONARD LANCE, New Jersey	JOHN P. SARBANES, Maryland
BILL CASSIDY, Louisiana	JERRY McNERNEY, California
BRETT GUTHRIE, Kentucky	BRUCE L. BRALEY, Iowa
PETE OLSON, Texas	PETER WELCH, Vermont
DAVID B. MCKINLEY, West Virginia	BEN RAY LUJAN, New Mexico
CORY GARDNER, Colorado	PAUL TONKO, New York
MIKE POMPEO, Kansas	
ADAM KINZINGER, Illinois	
H. MORGAN GRIFFITH, Virginia	
GUS M. BILIRAKIS, Florida	
BILL JOHNSON, Ohio	
BILLY LONG, Missouri	
RENEE L. ELLMERS, North Carolina	

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

TIM MURPHY, Pennsylvania

Chairman

MICHAEL C. BURGESS, Texas	DIANA DEGETTE, Colorado
<i>Vice Chairman</i>	<i>Ranking Member</i>
MARSHA BLACKBURN, Tennessee	BRUCE L. BRALEY, Iowa
PHIL GINGREY, Georgia	BEN RAY LUJAN, New Mexico
STEVE SCALISE, Louisiana	JANICE D. SCHAKOWSKY, Illinois
GREGG HARPER, Mississippi	G.K. BUTTERFIELD, North Carolina
PETE OLSON, Texas	KATHY CASTOR, Florida
CORY GARDNER, Colorado	PETER WELCH, Vermont
H. MORGAN GRIFFITH, Virginia	PAUL TONKO, New York
BILL JOHNSON, Ohio	GENE GREEN, Texas
BILLY LONG, Missouri	JOHN D. DINGELL, Michigan (<i>ex officio</i>)
RENEE L. ELLMERS, North Carolina	HENRY A. WAXMAN, California (<i>ex officio</i>)
JOE BARTON, Texas	
FRED UPTON, Michigan (<i>ex officio</i>)	

C O N T E N T S

	Page
Hon. Tim Murphy, a Representative in Congress from the Commonwealth of Pennsylvania, opening statement	1
Prepared statement	3
Hon. Kathy Castor, a Representative in Congress from the State of Florida, opening statement	4
Hon. Michael C. Burgess, a Representative in Congress from the State of Texas, opening statement	6
Hon. Henry A. Waxman, a Representative in Congress from the State of California, opening statement	7
Hon. Fred Upton, a Representative in Congress from the State of Michigan, prepared statement	74
WITNESSES	
Daniel B. Poneman, Deputy Secretary, Department of Energy	9
Prepared statement	12
Answers to submitted questions	79
Gregory H. Friedman, Inspector General, Department of Energy	17
Prepared statement	19
Answers to submitted questions	103
David C. Trimble, Director, Natural Resources and Environment Team, Government Accountability Office	29
Prepared statement	31
Answers to submitted questions	106
SUBMITTED MATERIAL	
Hearing memorandum, dated July 22, 2013, submitted by Mr. Murphy	75

DEPARTMENT OF ENERGY OVERSIGHT: WHAT IS NECESSARY TO IMPROVE PROJECT MAN- AGEMENT AND MISSION PERFORMANCE?

WEDNESDAY, JULY 24, 2013

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:02 a.m., in room 2322 of the Rayburn House Office Building, Hon. Tim Murphy (chairman of the subcommittee) presiding.

Members present: Representatives Murphy, Burgess, Blackburn, Scalise, Harper, Olson, Gardner, Griffith, Johnson, Ellmers, Braley, Lujan, Castor, Tonko, Green, and Waxman (ex officio).

Staff present: Carl Anderson, Counsel, Oversight; Charlotte Baker, Press Secretary; Sean Bonyun, Communications Director; Annie Caputo, Professional Staff Member; Karen Christian, Chief Counsel, Oversight and Investigations; Andy Duberstein, Deputy Press Secretary; Vincent Esposito, Fellow, Nuclear Programs; Brad Grantz, Policy Coordinator, Oversight and Investigations; Brittany Havens, Legislative Clerk; Brandon Mooney, Professional Staff Member; Peter Spencer, Professional Staff Member, Oversight; John Stone, Counsel, Oversight; Brian Cohen, Democratic Staff Director, Oversight and Investigations, and Senior Policy Advisor; Kiren Gopal, Democratic Counsel; Hannah Green, Democratic Staff Assistant; and Stephen Salisbury, Democratic Special Assistant.

OPENING STATEMENT OF HON. TIM MURPHY, A REPRESENTA- TIVE IN CONGRESS FROM THE COMMONWEALTH OF PENN- SYLVANIA

Mr. MURPHY. Good morning, and welcome.

We convene this hearing as part of the committee's ongoing oversight of the Department of Energy to review how the Department may improve its project management and its mission performance.

The hearing will feature testimony from Daniel Poneman, the Deputy Secretary of Energy, who will describe and explain the reorganization of the Department's management structure announced just last week by the new Secretary of Energy, Ernest Moniz. We will also hear from Greg Friedman, the DOE Inspector General, and from David Trimble, of the Government Accountability Office, both of whom will provide important context to help understand the potential of the Secretary's plans. Welcome, gentlemen.

The announced reorganization makes some significant changes to the Department's management structure with a more explicit focus on project management, so-called enterprise-wide mission support, and the integration of the agency's science and applied energy programs. The new structure will transform the Office of Under Secretary, which previously managed the Department's energy programs, into the Office of Under Secretary for Management and Performance. Under this setup, a new Under Secretary will manage the agency's large and challenging environmental cleanup responsibilities as well as a number of agency-wide mission support offices, and national laboratory operations.

The energy programs, including the Offices of Fossil Energy, Nuclear Energy, Energy Efficiency and Renewable energy, the Office of Electricity Delivery and Reliability will now be managed more closely with the Department's Office of Science by an Under Secretary for Science and Energy. In addition, the Secretary plans to reform agency safety and security oversight and also plans to establish various secretarial councils to address select policy issues.

On paper, these changes look like positive steps to help DOE address the tremendous challenges and opportunities before the agency. On the energy-mission side, we know that the prospects of North American energy production have surpassed all expectations in recent years. How this agency integrates the strength of its world-class science and engineering with its applied energy and various energy infrastructure programs to help maximize the benefits of this new reality for the American public is of key importance.

Meanwhile, DOE's core science and engineering missions must also confront the Federal Government's tremendous environmental responsibilities. Fifty years of Cold War nuclear research, development and weapons production have left behind contaminated water and soils, and tens of millions of gallons and millions of cubic meters of waste that must be cleaned up. Cleanup costs, estimated at more than \$250 billion, are a Federal liability surpassed only by Social Security and Medicare.

Repeated audits for this subcommittee by GAO have found that over the past two decades, DOE has suffered from substantial and continual weaknesses in effectively overseeing contractors and managing large, expensive and technically complex projects. But multibillion-dollar projects aren't the only problem. This past December, GAO told us that DOE did not have sufficient documentation to assess performance on almost 40 percent of its non-major projects—those costing less than \$750 million.

Lessons generated out of the serious security failure that occurred one year ago at the Y-12 site in Oak Ridge, Tennessee, has indicated how the successful reliance on Department contractors depends on strong and clear lines of accountability and on meaningful and consistent measurement of contractor performance. Attempts to institute what is called on the "eyes on, hands off" contractor oversight in recent years weakened accountability and were taken to a point that Washington had no clue about the mounting security risks in Tennessee.

We heard testimony from then-Secretary Steven Chu's own outside advisors that the Department's decentralized management of

the national security sites allowed them to leverage their unique missions and geography to justify being held to different levels of security standards. Confused accountability and conflicting priorities and messages from Washington created a culture of what is called “tolerating the intolerable,” as one of the Secretary’s advisors put it.

That episode relates to DOE’s governance of the nuclear security enterprise, but it points to accountability, management and oversight issues that require constant attention across all of the agency’s operations and projects if the agency is to perform its work safely, securely, and protective of taxpayers’ dollars.

Of course, whether and how the Secretary’s efforts will help improve the documented deficiencies in the Department’s performance will remain to be seen. The object of today’s hearing is to build a record that will help the committee monitor progress and conduct constructive oversight in coming months. Our goal is to help ensure the Department can sustain management and performance improvements and develop a culture of accountability, safety and security that extends throughout the agency’s operations.

[The prepared statement of Mr. Murphy follows:]

PREPARED STATEMENT OF HON. TIM MURPHY

We convene this hearing as part of the committee’s ongoing oversight of the Department of Energy to look particularly at what is necessary for the Department to improve its project management and mission performance.

The hearing will feature testimony from Daniel Poneman, the Deputy Secretary of Energy, who will describe and explain the reorganization of the Department’s management structure announced just last week by the new Secretary of Energy, Ernest Moniz. We will also hear from Greg Friedman, the DOE Inspector General, and David Trimble, of the Government Accountability Office, both of whom will provide important context to help understand the potential of the Secretary’s plans.

The announced reorganization makes some significant changes to the Department’s management structure, with a more explicit focus on project management, so-called enterprise-wide mission support, and the integration of the agency’s science and applied energy programs.

The new structure will transform the Office of Under Secretary, which previously managed the Department’s energy programs, into the Office of Under Secretary for Management and Performance. Under this set-up, a new Under Secretary will manage the agency’s large and challenging environmental cleanup responsibilities as well as a number of agency-wide mission support offices, and national laboratory operations.

The energy programs—including the Offices of Fossil Energy, Nuclear Energy, Energy Efficiency and Renewable Energy, the Office of Electricity Delivery and Reliability—will now be managed more closely with the Department’s Office of Science, by an Under Secretary for Science and Energy. In addition, the secretary plans to reform agency safety and security oversight and also plans to establish various Secretarial councils to address select policy issues.

On paper, these changes look like positive steps to help DOE address the tremendous challenges and opportunities before the agency. On the energy-mission side, we know that the prospects of North American energy production have surpassed all expectations in recent years. How this agency integrates the strength of its world-class science and engineering with its applied energy and various energy infrastructure programs to help maximize the benefits of this new reality for the American public is of key importance.

Meanwhile, DOE’s core science and engineering missions must also confront the Federal Government’s tremendous environmental responsibilities. Fifty years of Cold War nuclear research, development and weapons production have left behind contaminated water and soils, and tens of millions of gallons and millions of cubic meters of waste that must be cleaned up. Cleanup costs, estimated at more than \$250 billion, are a Federal liability surpassed only by Social Security and Medicare.

Repeated audits for this subcommittee by GAO have found that, over the past two decades, DOE has suffered from substantial and continual weaknesses in effectively

overseeing contractors and managing large, expensive, and technically complex projects. But multibillion-dollar projects aren't the only problem. This past December, GAO told us that DOE did not have sufficient documentation to assess performance on almost 40 percent of its nonmajor projects—those costing less than \$750 million.

Lessons generated out of the serious security failure that occurred one year ago at the Y-12 site in Oak Ridge, Tennessee, has indicated how the successful reliance on Department contractors depends on strong and clear lines of accountability and on meaningful and consistent measurement of contractor performance. Attempts to institute “eyes on, hands off” contractor oversight in recent years weakened accountability and were taken to a point that Washington had no clue about the mounting security risks in Tennessee.

We heard testimony from then-Secretary Steven Chu's own outside advisors that the Department's decentralized management of the national security sites allowed them to “leverage” their unique missions and geography to justify being held to different levels of security standards. Confused accountability and conflicting priorities and messages from Washington created a culture of “tolerating the intolerable,” as one of the Secretary's advisors put it.

That episode relates to DOE's governance of the nuclear security enterprise, but it points to accountability, management, and oversight issues that require constant attention across all of the agency's operations and projects—if the agency is to perform its work safely, securely, and protectively of taxpayers' dollars.

Of course, whether and how the secretary's efforts will help improve the documented deficiencies in the Department's performance will remain to be seen. The object of today's hearing is to build a record that will help the committee monitor progress and conduct constructive oversight in coming months. Our goal is to help ensure the Department can sustain management and performance improvements and develop a culture of accountability, safety, and security that extends throughout the agency's operations.

Mr. MURPHY. With that in mind, I look forward to an informative hearing, and I now recognize for 5 minutes the gentlelady from Florida, Ms. Castor, who is sitting in today for Ranking Member DeGette.

OPENING STATEMENT OF HON. KATHY CASTOR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Ms. CASTOR. Well, good morning, and thank you, Chairman Murphy. I am glad we are here today to discuss management and performance issues at the Department of Energy.

This committee has held a number of productive hearings on these important but sometimes overlooked areas. On this committee, there is a bipartisan consensus and there has been for some time regarding the importance of making sure that DOE is effectively managing its contractors and its environmental management and keeping the nuclear complex safe.

The recent confirmation of Energy Secretary Moniz and his efforts to reorganize the Department make this the perfect time to reexamine the longstanding agency weaknesses because for too long, the structure and culture at DOE has allowed for inadequate focus on management and performance. Because of the size of the agency, the complexity of its mission and its reliance on contractors—it is the largest civilian contracting agency in the Federal Government—it has proved difficult to set up effective performance and benchmarking procedures. But these tasks are essential in order to evaluate the quality of the work being carried out by the agency.

So I am interested in hearing from the witnesses today about the progress the Department of Energy has made in resolving these issues and about the GAO's and IG's recent work in the area. The

Secretary's announcement last week regarding DOE reorganization that created a new Under Secretary for Management and Performance is an encouraging development, and she must tackle these challenges head on. I am eager to learn more about how exactly this role will function and how the new integrated organizational approach will further DOE's mission and help build a clean energy economy.

It is a positive sign that DOE has a renewed commitment to resolving some of the thorny issues that have plagued the agency across multiple administrations. The effort must be sustained, and while there are no easy answers, I am confident that these challenges are not insurmountable. The Government Accountability Office designed contract administration and project management as a high-risk area in 1990. That it remains on the list in 2013 is proof of both the mistakes that have been made since that time and the inherent challenges of managing one of the most complex Federal agencies, especially when it comes to nuclear safety and security.

Security lapses at the Nation's nuclear weapons complex have been well documented from the Los Alamos National Lab to the shocking breach last year at the Y-12 facility in Oak Ridge, Tennessee, where an 83-year-old nun broke into what was supposed to be a highly secured area.

GAO reported recently that DOE and NNSA continue to face challenges in ensuring that oversight of safety and performance activities is effective. I would like to hear from DOE today about what more the agency can do to instill a culture of safety and what security measures have been put in place over the past year to ensure that critically important facilities are protected. The persistent issues at our nuclear facilities make very clear the need for strong oversight from this committee. Because DOE so heavily relies on contractors to carry out its mission activities, effective contractor governance is critical. But in January of this year, the Inspector General reported that despite at least 5 years of effort, NNSA had not yet implemented fully function and effective contractor assurance systems. NNSA must improve upon these efforts.

Finally, I continue to be concerned by DOE's longstanding problems relating to inaccurate cost estimates. The GAO has reported that cost-estimate practices are not uniform and that cost-estimating guidance is not up to date. The bottom line here is that taxpayers' dollars are at risk if the Department of Energy cannot accurately estimate costs. If we can conduct world-class nuclear research, then surely we can have consistent cost-estimating practices. So I would like to hear from the Deputy Secretary about what is being done to remedy these problems and how the new management structure will bring greater focus to these challenges.

The restructuring at the Department of Energy presents an opportunity for a fresh start with respect to DOE's management and performance issues. There is bipartisan agreement that these issues must be taken seriously, so thank you, Chairman Murphy, for holding this hearing today, and I look forward to having a productive session.

Mr. MURPHY. The gentlelady yields back, and now I recognize the vice chair of the subcommittee, Dr. Burgess, for 5 minutes.

**OPENING STATEMENT OF HON. MICHAEL C. BURGESS, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS**

Mr. BURGESS. Thank you, Mr. Chairman, and thanks to our witnesses for being here today to help us as we study this subject.

Last month, before the Subcommittee on Energy and Power, Secretary Moniz testified that he would be addressing the restructuring of management and performance within the Department of Energy as one of his top priorities. This admission comes as welcome news to those of us who have been concerned for several terms of Congress about the structure of the Department of Energy. As such, it is the intention of this hearing to identify what concerns Department officials have themselves, and going forward to the extent that they can be remedied.

But I can't help but reference, since the ranking member brought it up in her opening statement, in a previous subcommittee hearing many, many years ago when the problems at Los Alamos Lab were surfacing and apparently the thumb drive was a relatively new invention and was utilized for the inappropriate transfer of information, the response of the Director of Los Alamos was to fill the little USB ports with JB weld, which did solve the problem temporarily but I have got to believe that the clever criminal mind could find a way around that.

Members of Congress are not the only ones who have apprehensions that the structure of the Department of Energy has given rise to security risks and mismanagement. Because of the way the Department of Energy has been set up, in 1990 the Government Accountability Office designated the Department's contract management as high risk, saying that inadequate oversight has left it ripe for fraud and abuse. For the most part, Department of Energy has tried to address such high-risk areas, and the GAO has since removed the designation from its Office of Science. Since being listed as high risk, the Department of Energy has also taken the initiative to implement a corrective action plans and hopes to be removed from GAO's list. Despite this effort, a total of 12 projects are currently either at risk of breaching performance baselines or expected to breach performance baselines.

Unfortunate incidents have occurred. A year ago, last July, anti-nuclear activists entered the Y-12 complex and sprayed antiwar slogans on the exterior of a highly enriched uranium materials facility, a very dangerous exercise for them personally and certainly exposed the risks of that facility.

To date, the GAO, the Department of Energy, the Inspector General and Secretary Moniz himself have stated that reorganization is paramount in order to address future concerns at the Department of Energy. I will tell you as a physician that in order to prescribe the right medicine, you need to correctly diagnose the problem, so with that in mind, I am looking forward to the testimony of our witnesses today, and thank you, Mr. Chairman. I will yield back.

Mr. MURPHY. The gentleman yields back. Now to the ranking member of the full committee, Mr. Waxman of California, for 5 minutes.

OPENING STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. WAXMAN. Thank you Mr. Chairman. I appreciate you holding this hearing on management and performance at the Department of Energy.

Secretary Moniz has gotten off to a very good start at DOE, and I am pleased with the extent to which he has moved quickly to make positive changes since his confirmation. I think he has a good vision for the agency.

The energy subject at the top of my priority list is climate change. Secretary Moniz understands the challenges posed by rising levels of carbon pollution. He will play a key role in the implementation of the President's National Climate Action Plan. His efforts to identify the threats our energy sector faces due to climate change and to improve energy efficiency are important.

I am also impressed at the quick action he has taken to address the subject of this hearing: longstanding DOE problems with cost management, environmental compliance and physical security at the Nation's nuclear complex. These are not new problems at DOE. The agency is the largest civilian contractor in the Federal Government. For more than 20 years, dating to the first President Bush, GAO has placed DOE contract management on its high-risk list.

As one of his first acts, Secretary Moniz announced a reorganization that will create a new Under Secretary for Management and Performance. The President has nominated Beth Robinson, currently NASA's Chief Financial Officer, to fill the position. This restructuring will put one official in charge of strengthening environmental cleanup, contracting oversight, human capital and other important functions. I am interested in learning today about how this reorganization will strengthen lines of authority, program oversight, and internal coordination. I appreciate that Deputy Secretary Poneman is here today to discuss these changes and to explain to us how this new focus will represent an improvement over previous agency efforts. I also appreciate that the DOE Inspector General and Mr. Trimble from the Government Accountability Office are here to provide their views on these changes.

Mr. Chairman, I hope this is not the last hearing we hold on this subject. This committee has held multiple hearings on the subject of DOE management. Most recently, we held a hearing in March on the alarming incident involving an 83-year-old breaking into the highly secure DOE Y-12 facility in Tennessee. One of the conclusions from that hearing was that NNSA and DOE and their contractors need more oversight: from within their own agencies, from Congress, and from independent entities like GAO and the Inspector General.

The organizational changes announced by Secretary Moniz are promising. We know that the longstanding problems at DOE will not be easy to solve. But the Department of Energy's vital missions to develop new clean energy technologies and protect our nuclear stockpile are too important to the Nation for us to ignore.

I look forward to today's hearing and appreciate this committee's efforts to make sure that DOE's project management and mission performance improvements are on track.

I want to apologize in advance to the witnesses. I think every subcommittee on this committee is having meetings simultaneously this morning, and so I am telling each one when I am not present I am at the other one, and then I am going to go fishing. No, no, no, I will be at one hearing or the other, and I will try to get back here, Mr. Chairman.

Mr. MURPHY. We thank the ranking member for being omnipresent as well, and the same goes for the chairman of the full committee, Mr. Upton, who will probably be joining us here, but thank you.

I now want to introduce our witnesses for today. I mentioned them before but let me give you a little more background. The first is the Honorable Daniel Poneman, the Deputy Secretary for the U.S. Department of Energy, and as Deputy Secretary, he also serves as the Chief Operating Officer of the Department. Nominated to this position by the President on April 20, 2009, and confirmed by the Senate later, and in addition between April and May of 2013 was the Acting Secretary of Energy. Good to have you here, sir.

Our second witness is the Honorable Gregory Friedman, the Inspector General for the U.S. Department of Energy. In this capacity, he is responsible for nationwide independent program of audits, inspections and law enforcement efforts related to the Department of Energy's programs and operations. In addition to these responsibilities, Mr. Friedman also serves as a member of the Recovery Act Accountability and Transparency Board and the Government Accountability and Transparency Board.

Our third witness, David Trimble, serves as Director in the U.S. Government Accountability Office Natural Resources and Environmental Group. In this role, he provides leadership and oversight on U.S. and international nuclear security and cleanup issues including a number of projects conducted for this subcommittee.

I will now swear in the witnesses. As you are aware, this committee is holding an investigative hearing, and when doing so has the practice of taking testimony under oath. Do you have any objections to testifying under oath? Thank you. The chair then advises you that under the rules of the House and the rules of the committee, you are entitled to be advised by counsel. Do you desire to be advised by counsel during the hearing today? None of the witnesses wishes to be advised by counsel, so in that case, if you would please rise and raise your right hand, I will swear you in.

[Witnesses sworn.]

Mr. MURPHY. You are now under oath and subject to the penalties set forth in Title XVIII, section 1001 of the United States Code. You may now each give a 5-minute summary of your written statement. We will begin with Mr. Poneman.

**STATEMENTS OF DANIEL B. PONEMAN, DEPUTY SECRETARY,
DEPARTMENT OF ENERGY; GREGORY H. FRIEDMAN, INSPEC-
TOR GENERAL, DEPARTMENT OF ENERGY; AND DAVID C.
TRIMBLE, DIRECTOR, NATURAL RESOURCES AND ENVIRON-
MENT TEAM, GOVERNMENT ACCOUNTABILITY OFFICE**

STATEMENT OF DANIEL B. PONEMAN

Mr. PONEMAN. Thank you, Chairman Murphy, Ranking Member Castor and distinguished members of this subcommittee. I want to thank you all for the opportunity to discuss with you today the Department of Energy's ongoing efforts to improve its management and performance. In the past month, the President has given two major policy speeches, and the work that we do at the Department of Energy lies at the heart of both of these issues.

On June 19th in Berlin, the President echoed the nuclear security vision he first laid out in his 2009 Prague speech, calling on the global community to secure vulnerable materials, combat nuclear terrorism and proliferation, and build a sustainable and secure nuclear energy industry. As long as nuclear weapons exist, it is also this Department's responsibility to ensure that the U.S. nuclear stockpile remains safe, secure, and effective.

Less than a week later at Georgetown University, the President laid out a commonsense plan to reduce the effects of climate change by cutting dangerous carbon pollution, increasing the production of clean energy, and doubling down on energy efficiency. As the President said, and I am quoting, "A low-carbon, clean energy economy can be an engine of growth for decades to come." By taking action to reduce carbon pollution, the United States can spark new jobs and industries building cleaner and more efficient energy technologies.

These presidential priorities demand the best from us in terms of our performance, and so last week Secretary Moniz and I announced a reorganization that will better focus our efforts on all four mission areas of the Department: nuclear security, solving the Nation's energy challenges, advancing fundamental science, and environmental stewardship. For the Department to carry out our critical work in these areas, the Secretary has made clear that we must renew our focus on improving our management and performance in addressing the challenges that the Department has faced for its entire history. And in doing so, we will follow the President's direction to us earlier this month when he instructed his Cabinet to develop an aggressive management agenda for his second term, and I am quoting the President again, "that delivers a smarter, more innovative and more accountable government for its citizens."

The first major component of the reorganization expands the portfolio of the statutory Under Secretary for Science to include the energy technology portfolio, establishing the Office of the Under Secretary for Science and energy. Successful innovation for implementing the President's all-of-the-above energy strategy requires the ability closely to integrate basic science, applied research and technology demonstration. This is especially important in light of the urgency of addressing climate change and the need rapidly to develop technologies to materially alter the trajectory of greenhouse gas pollution.

The second major component of the reorganization consolidates the primary mission and operational support functions of the Department within the Offices of the Under Secretary for Management and Performance and also includes the Office of Environmental Management and the Office of Legacy Management as part of its structure and functions. Moving the Office of Environmental Management under the purview of the Under Secretary for Management and Performance brings the Department's strongest project management capabilities resident within the Office of Acquisition and Project Management directly to bear on one of the Department's most vexing yet vital challenges: cleaning up the nuclear waste that is a legacy byproduct of the Cold War.

In addition, transferring the Offices of Environmental Management and Legacy Management from the Under Secretary for Nuclear Security will allow this Under Secretary to focus exclusively on the NNSA's forward-looking missions while entrusting the environmental management mission to an organization devoted to solving management challenges. Aside from increasing the management resources available to oversee large projects, consolidating mission-support functions in the Office of the Under Secretary for Management and Performance will place a senior policy official dedicated to the task of management improvement on a full-time basis. The consolidation of these mission-support functions such as the Office of Management and Administration and the Office of the Chief Human Capital Officer will clarify and strengthen the lines of authority and accountability of these functions. The goal will be to institute enterprise-wide solutions to common challenges faced by program officers across the complex such as information management, acquisition and human resources. Within the Office of Management and Performance, we will also establish a new organizational unit: the National Laboratory Operations Board. It will have responsibility for oversight of administrative, mission support and infrastructure management of the National Laboratory System.

The third component increases coordination across the Department for a number of important cross-cutting policy issues that affect a number of programs across the Department. The Secretary has established the following secretarial councils: an Energy Council, a National Laboratory Policy Council, a Revised Credit Review Board including the establishment of a new Risk Committee, and the Cybersecurity Council.

I would like to bring to your attention two final areas in which we are seeking to improve coordination between program offices: policy formation and physical security management. First, we are examining opportunity for consolidating and upgrading the policy analysis functions of the Department. This capability will be needed to support the government-wide Quadrennial Energy Review the President called for in his June 25th climate speech at Georgetown University. The core of our new systems analysis capability will be formed from the existing Office of Policy and International Affairs. We will also examine opportunities to draw from the policy expertise of the program offices.

A second area under careful study is security management. I have previously testified before this subcommittee on the Depart-

ment's management of security and improvements we have made in the last year's Y-12 incident but this a matter of such seriousness that we must always continue our efforts to improve our performance, and I very much take account of the wise words of the chairman and ranking member here on that subject this morning. This includes thorough examination of broad issues of governance as they relate to the security of our category I nuclear materials. In recent months, we have been engaged in a thorough review of our security management, not just within NNSA or at the labs but enterprise-wide including assignment of authority and responsibility, contracting, performance measurement and accountability.

Finally, the Department under the leadership of Secretary Moniz has made management improvement a top priority, and we are aggressively pursuing a broad agenda of initiatives. The Secretary has challenged us to further elevate our performance, and I appreciate the opportunity to appear before this subcommittee to discuss our efforts to do so and of course, I would be pleased to answer any questions from subcommittee members. Thank you.

[The prepared statement of Mr. Poneman follows:]

**Prepared Statement
The Honorable Daniel B. Poneman
Deputy Secretary of Energy
Before the Subcommittee of Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives**

July 24, 2013

Chairman Murphy, Ranking Member DeGette and Members of the Subcommittee:

Thank you for the opportunity to discuss with you today the Department of Energy's ongoing efforts to improve its management and performance. These efforts are more important than ever, in light of the increasing responsibilities the President has entrusted to the Department.

Let me explain. In the past month, the President has given two major policy speeches, and the work that we do at the Department of Energy lies at the heart of both of these issues.

On June 19, in Berlin, the President echoed the nuclear security vision he first laid out in his 2009 Prague speech — calling on the global community to secure vulnerable materials, decrease the number of nuclear weapons, and build a sustainable and secure nuclear energy industry. The Department of Energy plays a vital role in achieving President Obama's nuclear security objectives, including the prevention of nuclear terrorism and the grave and urgent threat it presents to our nation and the world. As long as nuclear weapons exist, it is also the Department's responsibility to ensure that the U.S. nuclear stockpile remains safe, secure, and effective.

Less than a week later at Georgetown University, the President laid out a common sense plan to reduce the effects of climate change by cutting dangerous carbon pollution, increasing the production of clean energy, and doubling down on energy efficiency. For our part, the Department of Energy supports the groundbreaking science and innovation that is essential to the President's vision. As the President said, "A low-carbon, clean energy economy can be an engine of growth for decades to come." By taking action to reduce carbon pollution, the United States can spark new jobs and industries building cleaner and more efficient energy technologies.

These presidential priorities demand the best from us in terms of our performance, and so last week the Energy Secretary and I announced a reorganization that will better focus our efforts on all four mission areas of the Department: nuclear security, solving the Nation's energy challenges, advancing fundamental science, and environmental stewardship. For the Department to carry out our critical work in these areas, the Secretary has made clear that we must renew our focus on improving our management and performance in addressing the challenges that the Department has faced for its entire

history. For that reason, the reorganization will also focus heavily on increasing the focus on management and establishing a system of Departmental Councils to improve coordination of issues that cut across organizational lines.

On July 12, the Secretary approved a top-level reorganization of the Department that reallocates the responsibilities of the Department's three Offices of Under Secretary. This reorganization has three primary objectives:

- To improve integration of the science and applied energy R&D programs of the Department by establishing an Under Secretary for Science and Energy;
- To improve project management and increase the effectiveness and efficiency of our mission support functions across the Department by establishing an Under Secretary for Management and Performance; and
- To establish an enterprise-wide vision and coordination of major cross-cutting programs.

The balance of my testimony will describe these changes, and how they will address the Department's mission and management challenges.

Integrate the Science and Energy Portfolios

The first major component of the reorganization expands the portfolio of the statutory Under Secretary for Science to include the energy technology portfolio, establishing the Office of the Under Secretary for Science and Energy. Successful innovation for implementing the President's "all of the above" energy strategy requires the ability to closely integrate basic science, applied research, and technology demonstration. It also should enable clear feedback loops, so barriers to technology development can inform scientific direction and inquiry.

We also need to accelerate the innovation process — to rapidly translate scientific discovery into transformative technologies. This is especially important in light of the urgency of addressing climate change and the need rapidly to develop technologies to materially alter the trajectory of greenhouse gas pollution.

Establishing the Office of the Under Secretary for Science and Energy is key to enabling this critical transformation, and to implement the recommendation of the President's Council of Advisors on Science and Technology (PCAST) and other studies that have pointed to the need to improve integration of the science and applied energy R&D programs of the Department. This office will have direct oversight responsibility for the following offices:

- Office of Science (SC)
- Office of Energy Efficiency and Renewable Energy (EERE)
- Office of Nuclear Energy (NE)
- Office of Fossil Energy (FE)

- Office of Electricity Delivery and Energy Reliability (OE)
- Office of Indian Energy (IE)
- Office of Technology Transfer Coordinator

Elevate the Status of Management and Performance

The reorganization consolidates the primary mission and operational support functions of the Department within the office of the Under Secretary for Management and Performance, and also includes the Office of Environmental Management and Office of Legacy Management as part of its structure and functions. The purpose of this consolidation is to elevate the Department's focus on and attention to these important functions. This office will have full-time oversight of the operational functions of the following offices:

- Office of Management and Administration (MA)
- Office of the Chief Human Capital Officer (HC)
- Office of the Chief Information Officer (CIO)¹
- Office of Economic Impact and Diversity (ED)
- Office of Hearings and Appeals (OHA)
- Office of Environmental Management (EM)
- Office of Legacy Management (LM)

Moving the Office of Environmental Management under the purview of the Under Secretary for Management and Performance brings the Department's strongest project management capabilities, resident within the Office of Acquisition and Project Management, directly to bear on one of the Department's most vexing yet vital challenges: cleaning up nuclear waste that is a legacy byproduct of the Cold War. These DOE sites include Hanford, WA, Savannah River, SC, and Paducah, KY.

This reorganization will enable the new Under Secretary for Management and Performance to utilize a more concentrated level of resources and to apply better managerial discipline to address project management issues in this critical area. Reforms initiated over the past several years have begun to bear fruit. The GAO has narrowed the scope of its high-risk designation for DOE's contract administration and project management to major capital asset projects — those costing more than \$750 million. Efforts are now under way to address the serious challenges confronting several major construction projects. In addition, the Secretary has approved the formation of a new working group, representing offices across the Department, including NNSA, to continue on efforts to improve performance in this area.

In addition, transferring the Offices of Environmental Management and Legacy Management from the Undersecretary for Nuclear Security will allow this undersecretary to focus exclusively on NNSA's forward-looking missions — including stewardship of our nation's nuclear stockpile and advancing the

¹ The CHCO and CIO would continue to have direct access to the Secretary so that they can provide broad policy advice and other functions, as specified by statute or regulation.

President's nuclear security agenda — while entrusting the Environmental Management mission to an organization devoted to solving management challenges.

Improving the effectiveness and efficiency of Departmental operations has been a continuing effort over the past four years, and it remains a top priority for the senior leadership of the Department. Although significant progress has been made, we understand clearly that we need to do much more. Aside from increasing the management resources available to oversee large projects, consolidating mission support functions in the Office of the Under Secretary for Management and Performance will place a senior policy official dedicated to the task of management improvement on a full-time basis.

The consolidation of these mission support functions — such as the Office of Management and Administration and Office of the Chief Human Capital Officer — will clarify and strengthen the lines of authority and accountability of these functions. The goal will be to institute enterprise-wide solutions to common challenges faced by program offices across the complex, such as information management, acquisition, and human resources. The Chief Human Capital Officer and Director of the Office of Civil Rights will continue to have direct access to the Office of the Secretary to provide broad policy advice and other functions — but day-to-day operations will be under the oversight of the Under Secretary.

Within the Office of Management and Performance, we will also establish a new organizational unit: the National Laboratory Operations Board. It will have responsibility for oversight of administrative, mission support, and infrastructure management of the National Laboratory System. This office will enable us to establish an enterprise-wide effort to tackle the parallel administrative issues affecting the labs, regardless of which program office administers each of them.

Improve Enterprise-Wide Management Coordination

We are also planning ways to increase coordination across the Department.

For a number of important cross-cutting policy issues, which all affect a number of programs across the Department, the Secretary has established the following Secretarial Councils:

- An Energy Council;
- A National Laboratory Policy Council;
- A revised Credit Review Board, including establishment of a new Risk Committee; and
- A Cyber Security Council.

We are also reactivating and restructuring the Secretary of Energy Advisory Board (SEAB), with the restructured SEAB having four standing subcommittees to address each of the major Departmental mission areas.

I would like to bring to your attention two final areas in which we are seeking to improve the coordination between programs offices: policy formation and physical security management.

First, we are examining opportunities for consolidating and upgrading the policy analysis functions of the Department. A PCAST report recommended a broader systems approach to energy policy planning. This capability will be needed to support the government-wide Quadrennial Energy Review the President called for in his June 25 climate policy speech at Georgetown University. The core of our new energy systems analysis capability will be formed from the existing Office of Policy and International Affairs. We will also examine opportunities to draw from the policy expertise of the program offices.

A second area under careful study is security management. I have previously testified before this Subcommittee on the Department's management of security, and improvements we have made in the wake of last year's Y-12 incident, but this is a matter of such seriousness that we are committed to continue our efforts to improve our performance, including through examination of broad issues of governance as they relate to the security of our Category I nuclear materials. In recent months, we have been engaged in a thorough review of our security management —not just within NNSA or at the labs, but enterprise-wide — including delegation of authority and responsibility, contracting, performance measurement and ultimate accountability.

We are undertaking this assessment deliberately, and I want to assure the Committee that we are working on this issue, and plan to adopt organizational and management changes when we conclude our internal review. We will of course keep the Subcommittee informed of these efforts.

Conclusion

These organizational changes will enhance the Department's ability to carry out its responsibilities to the President and to the Congress, while improving our financial stewardship at a time of tight fiscal constraints. Reducing the cost of doing business within the Department will enable us to allocate more resources toward our mission objectives in national security, science, clean energy, and environmental stewardship.

The Department, under the leadership of the Secretary, has made management improvement a top priority, and we are aggressively pursuing a broad agenda of initiatives. He has brought new ideas to the Department, drawing from the work of the President's Council of Advisors on Science and Technology and other inputs, as well as from his prior service to DOE. The Secretary has challenged us to further elevate our performance, and I appreciate the opportunity to appear before the subcommittee to discuss our efforts to do so. I would be pleased to answer any questions from Subcommittee members.

Mr. MURPHY. Thank you.
Mr. Friedman for 5 minutes.

STATEMENT OF GREGORY H. FRIEDMAN

Mr. FRIEDMAN. Mr. Chairman, Ms. Castor, members of the subcommittee, I appreciate the opportunity to testify at your request on the major challenges facing the Department of Energy.

The Department is, as has been described, responsible for executing some of the Nation's most complex and technologically advanced missions. The Office of Inspector General provides independent oversight of the Department's operations to promote economy and efficiency and to detect and prevent fraud, waste and abuse.

My office annually identifies what it considers to be the most significant management challenges facing the Department. For 2013, this list includes operational efficiency and cost savings, contract and financial assistance award management, cybersecurity, energy supply, environmental cleanup, human capital management, nuclear waste disposal, safeguards and security, and stockpile stewardship. Because of their complexity, these challenges are not amenable to immediate resolution. Therefore, they must be addressed through a sustained effort over time.

In 2012 and 2013, due to what appeared to us to be obvious looming budget constraints, we identified operational efficiency and cost savings as the Department's preeminent management challenge. In doing so, we presented the Department with five suggestions to optimize operations. These include applying the Quadrennial Technology Review strategic planning concept to the Department's entire science and technology portfolio, eliminating costly duplicative National Nuclear Security Administration functions, evaluating, consolidating and/or rightsizing the Department's laboratory and technology complex, reprioritizing the Department's environmental remedial efforts with the goal of funding work on a risk basis, and realigning the current structure of the Department's physical security apparatus. These suggestions provide only a starting point for further discussion and examination. They represent approaches that we readily acknowledge are difficult to implement, highly controversial and politically challenging.

Virtually all of our work intersects with one or more of the management challenges that I alluded to earlier. In my written statement, I have summarized three recent reports that are reflective of this relationship. These include first contract management, project management and quality assurance concerns with the Department's contractor-managed construction of the Waste Treatment and Immobilization Plant—the WTP—in Hanford, Washington. The current cost estimate for the WTP project is over \$12 billion, or three times larger than its original budget. Second, issues relating to the implementation and effectiveness of contractor assurance systems by NNSA and its contractors, and finally, efforts by the Department to reduce international travel as a means of reducing Federal expenditures.

In its invitation letter, the subcommittee expressed specific interest in the status of project management at the Department. Your interest reflects a concern that we share and one that is clearly of

prime importance to the Department's senior leaders. The Department currently has several major projects including the WTP that are significantly over budget and face considerable delays. As I have testified previously, there are several common threads central to these and related contract and project management problems. Improvements are needed to ensure that project scopes and supporting cost estimates are realistic, manageable, recognizing the technical challenges facing many Department efforts. The change control management is adequate and project baselines are updated on a real-time basis to maintain their effectiveness as a primary tool. Contract terms are kept current to track with project events, contractor performances measured against established metrics including realistic and reliable cost estimates, Federal staffing is sufficient both in terms of size and expertise to provide effective contract and project oversight, and finally, the project have focused, empowered and consistent Federal project manager leadership throughout their lifecycle.

As Deputy Secretary Poneman has discussed, Secretary Moniz recently unveiled a new structure for the Department, which is designed to focus on key programmatic priorities and agency performance and management. We are hopeful that the new initiatives, as widespread as they are, as has been described the Deputy Secretary, will help to address the Department's management challenges. We look forward to working with Secretary Moniz, Deputy Secretary Poneman, program officials and the Congress to enhance departmental operations and in so doing to advance the interest of the U.S. taxpayers.

Mr. Chairman and members of the subcommittee, this concludes my statement. I would be pleased to answer any questions that you may have.

[The prepared statement of Mr. Friedman follows:]

Statement of Gregory H. Friedman

Inspector General

U.S. Department of Energy

Before the

Subcommittee on Oversight and Investigations

Committee on Energy and Commerce

U.S. House of Representatives

FOR RELEASE ON DELIVERY

10:00 am

July 24, 2013

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to testify at your request on the major challenges facing the Department of Energy as identified by the Office of Inspector General (OIG).

The Department of Energy is a multi-faceted agency responsible for executing some of the Nation's most complex and technologically advanced missions. These missions include cutting edge work in basic and applied science, clean energy innovation, energy efficiency and conservation, environmental cleanup, nuclear weapons stewardship, and efforts to enhance national security. In order to execute this diverse portfolio, the Department receives an annual appropriation approaching \$30 billion, employs nearly 110,000 Federal and contractor personnel, and manages assets valued at over \$180 billion.

The OIG provides independent oversight of the Department's operations through a rigorous program of audits, inspections, and investigations designed to promote economy and efficiency, and to detect and prevent fraud, waste, abuse, and mismanagement. A primary aspect of our work involves the examination of Department programs and procedures through a combination of performance and financial reviews, including cyclical evaluations of management and operating costs of the Department's numerous contractors. Much of our work is governed by an annual risk assessment process. Through this process, the OIG establishes its internal operating strategy based on an overarching goal of addressing the Department's most pressing issues on a priority basis.¹

Department of Energy Management Challenges

Updated annually, the OIG identifies what it considers to be the most significant management challenges facing the Department. We have a unique, independent perspective, which allows us to provide management, the Congress, and the taxpayers with an unfiltered view of Departmental operations. For Fiscal Year (FY) 2013, our list of significant management challenges includes:

- Operational Efficiency and Cost Savings
- Contract and Financial Assistance Award Management

¹ A full inventory of published OIG reports can be found at: <http://energy.gov/ig/calendar-year-reports>.

- Cyber Security
- Energy Supply
- Environmental Cleanup
- Human Capital Management
- Nuclear Waste Disposal
- Safeguards and Security
- Stockpile Stewardship

Given the inherent nature and complexity of these challenges, they are not amenable to immediate resolution. Thus, these challenges must be addressed through a concentrated, persistent effort over time.

Office of Inspector General Activities

Our inventory of work products provides the underpinning of our management challenges report. Virtually all of our work intersects with one or more of these challenge areas. I would like to discuss three recent reports that are reflective of this relationship. These include: project management, environmental cleanup, and contract administration issues at the Hanford Site; general Department contractor governance issues; and management of foreign travel by the Department and its contractors.

*Waste Treatment and Immobilization Plant Quality Assurance*²

An OIG review reported on problems with the Department's contractor-managed construction of the Waste Treatment and Immobilization Plant (WTP) in Hanford, Washington, a project with an estimated cost of over \$12 billion or three times larger than its original budget. Our review found that contractor management of this project, one of the largest undertakings of its kind, did not always meet quality assurance and contract requirements. To shield plant workers from intense radiation during WTP operations, processing vessels are to be located in sealed compartments called black cells. Because there is no engineered access to black cells once operations begin, it is critical that processing vessels last for the WTP's 40-year expected design

² *The Department of Energy's \$12.2 Billion Waste Treatment and Immobilization Plant-Quality Assurance Issues—Black Cell Vessels*, DOE/IG-0863, available at: http://energy.gov/sites/prod/files/IG-0863_0.pdf

life without in-service inspection and maintenance. However, the contractor responsible for the WTP effort procured black cell vessels that were missing required documentation intended to provide evidence that welds to the vessels met specifications. As we reported, this was inconsistent with the project's quality assurance process.

We also found that the Department paid the WTP contractor a \$15 million incentive fee for production of a vessel that was later determined to be defective. Our review disclosed that although the Department demanded return of the fee, it was never actually reimbursed. Department management told us the \$15 million incentive fee payment issue was included for consideration as part of the WTP contract restructuring; however, management could not furnish documentation to explain or support the rationale for its decision to forego recovery of the fee.

While it has a number of unique characteristics, the history of the WTP project is, in many ways, emblematic of the Department's long-standing problems with contract administration and project management, particularly as they relate to the Department's \$268 billion environmental remediation liability.

*Contractor Governance*³

Given the Department's near total reliance on contractor support for mission execution, the importance of efforts related to enhancing contractor governance, and contractor performance, transparency, and effectiveness, cannot be overstated. In 2012, to assess Department progress in this area, we reviewed the status of contractor assurance systems by NNSA and its contractors.

We found that since July 2007, the Department and NNSA had required contractors to implement self-assessment systems to measure performance and help ensure effective and efficient mission accomplishment. NNSA's approach relies on contractors to assess and evaluate their own performance, with Federal oversight of contractor activities, especially with regard to nuclear safety and security.

³ *National Nuclear Security Administration Contractor Governance*, DOE/IG-0881, available at: <http://energy.gov/sites/prod/files/IG-0881.pdf>.

Yet, as we reported, despite at least five years of effort, NNSA and its support offices and site contractors still had not implemented fully functional and effective contractor assurance systems. Specifically:

- The contractor governance system was rendered ineffective by what Federal site level officials referred to as an "eyes on, hands off" approach to contract management;
- Contractor self-assessments were not effective in identifying weaknesses;
- Contractor weaknesses were not effectively communicated to senior management officials; and
- Performance metrics tracked in the assurance systems were not clearly linked to those contained in the contractor performance evaluation plans used to determine fees.

We found that NNSA had placed substantial reliance on its contractors' ability to self identify and correct weaknesses, even those that have the potential to threaten the safe, secure, effective and efficient operation of the Department's national security facilities. Our findings suggested that such reliance may be unjustified absent more intense Federal validation of contractor assertions.

The underlying fact pattern associated with a July 2012 security breach at the Y-12 National Security Complex in Oak Ridge, Tennessee, as well as an ensuing compromise of Protective Force security tests at the facility, illustrated the potential severity of concerns regarding NNSA's contractor governance approach. While there were a number of relevant factors, the most significant may have been the "eyes on, hands off" approach attributed to the Federal staff providing contract oversight at Y-12.

*The Department's Management of Foreign Travel*⁴

Given its extensive reliance on contractors, measures to address the management challenges facing the Department, particularly in the area of efficiency and cost savings, must inherently involve issues related to contract governance, contract administration, efforts to measure

⁴ *The Department of Energy's Management of Foreign Travel*, DOE/IG-0872, available at: <http://energy.gov/sites/prod/files/DOE-IG-0872.pdf>.

contractor performance, and efforts to hold contractors accountable. In this context, we recently examined the Department's response to a Presidential directive to reduce travel as a means of reducing Federal expenditures. To its credit, in response to the Presidential directive, the Department implemented a mandatory 30 percent reduction in Federal employee travel. However, parallel action had not been taken to manage or control foreign travel by contractors. Consistent with the Department's organizational structure and its significant reliance on contractor assistance, the vast majority of these taxpayer-funded trips, in fact about 85 percent, were taken by contractor employees. Had the Department applied the 30 percent reduction criteria to the international travel costs incurred by its nearly 100,000 contractors, as much as \$15 million could be saved each year. While we would not anticipate total equality between the treatment of Federal and contractor personnel, in our view in this case, an across-the-board application of the requirement to reduce travel would have been both appropriate and beneficial.

Operational Efficiency and Cost Savings

As part of our Management Challenges report for FY's 2012 and 2013, we concluded that Federal budgetary concerns made finding ways to optimize agency operations and reduce costs the preeminent management challenge facing the Department. In this context, we added Operational Efficiency and Cost Savings to our list of management challenges and presented the Department with five suggestions for reducing its cost of operations and enhancing agency efficiency. These proposals included:

- Applying the Quadrennial Technology Review (QTR) strategic planning concept to the Department's entire science and technology portfolio;
- Eliminating costly, duplicative NNSA functions;
- Evaluating, consolidating, and/or rightsizing the Department's laboratory and technology complex;
- Reprioritizing the Department's environmental remediation efforts with the goal of funding the work on a risk basis; and
- Re-evaluating the current structure of the Department's physical security apparatus.

Our intent was, and continues to be, to highlight possible ways in which the Department can reduce the overall cost of operations and become more efficient. While the suggestions are intended to provide only a starting point for further discussion and examination, we are mindful of the fact that they represent approaches that could be difficult to implement, highly controversial, and politically challenging. The following five summaries provide additional details on these suggestions.

Expand the QTR strategic planning concept to the Department's entire science and technology portfolio: In September 2011, the Department released its inaugural QTR, in essence a research and development strategic plan. In his message prefacing the report, then-Secretary Chu referred to the hard budget choices and fiscal challenges facing the Department, concluding that the Department must find ways to intelligently choose between the many technically viable activities it could pursue. The QTR, advanced as a mechanism to guide these difficult choices, provided quality analysis and important information. However, as beneficial as it may be, the scope was limited to the Department's energy-related technology sector. We concluded that the discipline of the QTR process should be applied to the Department's entire set of science and technology activities. This type of large-scale planning effort would enable the Department to better evaluate its multi-billion dollar per year science effort to determine whether initiatives are aligned with current priorities; identify metrics to help decision makers confirm that research dollars are used for the highest and best purposes; and determine whether the work of its separate system of 16 Federally Funded Research and Development Centers (FFRDC) are properly integrated.

Eliminate duplicative NNSA functions: Created in response to national security concerns, NNSA was established as a separately organized agency within the Department under the Defense Authorization Act of 2000. NNSA maintains a set of distinctly separate overhead and indirect cost operations that often duplicate existing Departmental functions. These include human resources, general counsel, congressional and public affairs, procurement and acquisition, and information technology. These expenses are significant and parallel functions that exist at Headquarters as well as a number of field sites where Department and NNSA activities are co-located. In addition to cost considerations, these redundancies can complicate communications

and program execution and cause different interpretations of core Departmental policy. We recommended that the alignment be closely examined with the goals of consolidating overlapping efforts, preserving scarce resources, and improving operations.

Evaluate, consolidate, and/or rightsize the Department's laboratory and technology complex:

The Department operates 16 FFRDCs at an annual cost of more than \$10 billion.⁵ Of this amount, nearly \$3.5 billion was spent on general administrative functions including executive direction, human resources, procurement, legal, safeguards and security, utilities, logistics support, and information services. In our view, the proportion of scarce science resources diverted to administrative, overhead, and indirect costs for each laboratory may be unsustainable in the current budget environment. We recommended that the Department, using a BRAC-style formulation, analyze, and potentially, realign and consolidate laboratory operations to reduce indirect costs and, as a result, provide greater funds for science and research.

Reprioritize the Department's environmental remediation efforts: The Department's current unfunded environmental remediation liability is approximately \$268 billion. As a result of more than 50 years of nuclear defense and energy research work, the Department spends about \$6 billion per year on its environmental remediation activities. In doing so, at the time of our examination, program costs were largely "driven" by 37 individually negotiated Federal Facility Agreements (FFA) at key Department sites across the Nation. The FFAs involve no less than 350 milestones at these sites. The FFAs are augmented by numerous other local agreements with their own set of actions, requirements, milestones and due dates. The existing structure needs to be modified to reflect the realities of significant reductions in the Department's environmental cleanup budget. Consequently, we recommended that the Department revise its current remediation strategy and address environmental concerns on a national, complex-wide risk basis. This would result in a form of a complex-wide environmental remediation triage, funding only high-risk activities that represent imminent or near term danger to health and safety, or further environmental degradation.

⁵ This figure excludes the sizeable "Work for Others" programs at the Department's national laboratories.

Re-evaluate the current structure of the Department's physical security apparatus: The Department spends more than \$1 billion per year providing physical security for its facilities and related materials and data. Of this amount, nearly \$700 million per year is spent on a complex-wide protective force staff of nearly 4,000 highly trained professionals. The protective force staff is made up exclusively of contractor personnel retained through different mechanisms. These arrangements, which lack uniformity and consistency, result in at least 25 separate contract instruments, all with costly overhead burdens. We concluded the new budget realities require change and we recommended an in-depth evaluation of available options. These included a “master contract” to provide security at all Department facilities, consolidating protective force contracts by region or Departmental entity, or federalizing the protective force. Protective force contract realignment or some form of federalization may reduce security costs and improve the Department's physical security posture.

Observations

In your invitation letter, the Subcommittee expressed specific interest in the status of project management at the Department. Your interest reflects a concern that we share and one that is clearly of prime importance to the Department's senior managers. The Department currently has several major projects, such as the WTP, that are significantly over budget and face considerable delays. As I have testified previously, there are several “common threads” central to these and related contract and project management problems. Improvements are needed to ensure that:

- Project scopes and supporting project cost estimates are realistic and manageable, recognizing the technical challenges facing many Department efforts;
- Change control management is adequate and project baselines are updated on a real-time basis to maintain effectiveness as a primary management tool;
- Contract terms are kept current to track with project events;
- Contractor performance is measured against established metrics, including realistic and reliable cost estimates;
- Federal staffing is sufficient, in terms of size and expertise, to provide effective contract and project oversight; and

- Projects have focused, empowered and consistent Federal Project Manager leadership throughout their lifecycle.

Secretary Moniz recently unveiled a new structure for the Department, which is designed to focus on key programmatic priorities and agency performance and management. We are hopeful that the new initiatives will aid in addressing the Department's management challenges. We look forward to working with Secretary Moniz, Deputy Secretary Poneman, program officials, and the Congress to enhance Departmental efficiency and operations.

Mr. Chairman and Members of the Subcommittee, that concludes my statement and I will be happy to answer any questions you may have.

Mr. MURPHY. Thank you. I apologize. I had to step out of the room for a second.

Mr. TRIMBLE.

STATEMENT OF DAVID C. TRIMBLE

Mr. TRIMBLE. Chairman Murphy, Ranking Member Castor and members of the subcommittee, my testimony today discusses our observations on the management challenges facing DOE. My observations are drawn from our past work, which has highlighted the challenges DOE faces in project and contract management, security and safety, and producing reliable enterprise-wide management information.

Regarding project and contract management, DOE has made progress in managing the cost and schedule of non-major projects—those costing less than \$750 million—and in recognition of this progress, we narrowed the focus of our high-risk designation to major contracts and projects.

Major projects, however, continue to pose a challenge for EM and NNSA. All of the ongoing major projects continue to experience significant cost increases and schedule delays. UPF costs have increased seven fold, up to \$6.5 billion, for a project with a reduced scope and 11 years after the schedule. MOX costs have increased five fold, up to \$7.7 billion, with 15 years added to the schedule. Notably, since 2010 alone, cost increases for MOX have totaled \$2.8 billion for a project originally estimated to cost \$1.4 billion. WTP has tripled in cost to over \$12 billion with a decade added to its schedule. Moreover, we found that DOE prematurely rewarded the contractor for resolving technical issues and completing work. We are currently assessing DOE cost-estimating policies and practices and plan to issue a report later this year.

Regarding security, over a decade after NNSA was created to address security issues, the Y-12 security incident has raised concern that NNSA has still not embraced security as an essential element of its missions. Multiple investigations into the security breach identified significant deficiencies in NNSA security organization, oversight and culture. DOE and NNSA have taken a number of actions including repairing security equipment, reassigning key security personnel, and firing the Y-12 protective force contractor. DOE and NNSA's leadership have also committed to additional actions such as revamping the security oversight model.

DOE has a long history of security breakdowns and an equally long history of instituting responses and remedies to fix these problems. In recent testimony, the leadership of the NNSA security task force examining the Y-12 incident identified problems with NNSA's Federal security organization. Notably, in 2003, we reported on these very same problems, problems which have persisted or resurfaced, notwithstanding numerous DOE initiatives to fix or address them. The key challenge going forward will not be how to implement security improvements but how to sustain them.

Regarding safety, in September 2012, we testified before this subcommittee noting that DOE's recent safety reforms may have actually weakened independent oversight. Notably, since this testimony, reports by DOE have continued to identify safety concerns at Pantex and other DOE sites.

In regard to important enterprise-level management information such as budgetary and cost data, in June 2010 we examined NNSA's program to operate and maintain weapons facilities and infrastructure and found that NNSA could not accurately identify the total costs for this congressionally directed program, and NNSA's budget justification understated these costs by over \$500 million.

In July 2012, we found deficiencies in NNSA's validation of budget requests for its programs and concluded that these weaknesses impacted the credibility and reliability of those budget estimates. According to NNSA's officials, the agency's experience and trust in its contractors minimized the need for such review. Without accurate cost and budget data, DOE will continue to be surprised by cost and schedule problems in its projects and programs, and Congress will not have the information it needs to oversee the billions provided yearly in appropriations.

In closing, let me observe that the Department's most significant mission accomplishments such as keeping the stockpile safe and reliable, successfully closing nuclear facilities such as the old Rocky Flats plant, consolidating nuclear material, and energy and science breakthroughs are too often overshadowed by repeated project cost overruns, schedule delays, glaring security incidents and safety mishaps. Until these key management issues are addressed, such problems will continue to cast a shadow over DOE's mission accomplishments. A key step in addressing these longstanding issues will be for DOE to embrace sound project management, credible security and security programs, and reliable management information systems as key elements of the Department's mission instead of impediments to this mission.

Thank you. I would be happy to answer any questions.

[The prepared statement of Mr. Trimble follows:]



United States Government Accountability Office

Testimony

Before the Subcommittee on Oversight
and Investigations, Committee on
Energy and Commerce, House of
Representatives

For Release on Delivery
Expected at 10 a.m. EDT
Wednesday, July 24, 2013

DEPARTMENT OF
ENERGY

Observations on DOE's
Management Challenges
and Steps Taken to Address
Them

Statement of David C. Trimble, Director
Natural Resources and Environment

GAO Highlights

Highlights of GAO-13-767T, a testimony before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives

Why GAO Did This Study

DOE missions encompass energy resources, scientific and technological development, environmental cleanup, and nuclear security. Management of major projects and contracts within EM and NNSA, a separately organized agency within DOE, remain on GAO's list of areas at high risk of waste, fraud, abuse, and mismanagement, where they have been listed since 1990. Progress has been made, but GAO continues to identify management problems related to cost and schedule overruns on major environmental cleanup and nuclear projects and safety problems at DOE sites that have not been fully addressed.

This testimony discusses DOE's management challenges in (1) managing major projects and programs, (2) managing security and safety at DOE sites, and (3) producing reliable enterprise-wide information, including budget and cost data.

Over the past decade, GAO has made numerous recommendations in its reports to address challenges such as those identified in this testimony. DOE agreed with most of them and is taking steps toward implementing them. GAO's work has also recognized some of the steps that DOE has taken to address these challenges. For example, in the most recent update of GAO's high-risk series, GAO narrowed the focus of the high-risk designation of DOE's contract management to EM's and NNSA's major contracts and projects (i.e., those costing \$750 million or more). GAO will continue to monitor DOE's implementation of actions to resolve long-standing management challenges, including actions taken in response to GAO's recommendations.

View GAO-13-767T. For more information, contact David Trimble at (202) 512-3841 or trimbled@gao.gov.

July 24, 2013

DEPARTMENT OF ENERGY

Observations on DOE's Management Challenges and Steps Taken to Address Them

What GAO Found

As GAO has reported over the last decade, the Department of Energy's (DOE) management of major projects and programs, security and safety at DOE sites, and reliable enterprise-wide management information, including budget and cost data, are among the most persistent management challenges the department faces.

- Challenges managing major projects and programs.** The Office of Environmental Management (EM) and the National Nuclear Security Administration (NNSA) continue to face challenges managing major projects and programs, which have incurred significant cost increases and schedule delays. For example, GAO reported in July 2013 that the cost estimate range for a project to construct a modern Uranium Processing Facility (UPF) at DOE's Y-12 National Security Complex in Oak Ridge, Tennessee, had increased five- to seven-fold to up to \$6.5 billion since the project's inception in 2004. Furthermore, the most recent cost estimate range may no longer be valid after the contractor reported in August 2012 that the UPF's roof would have to be raised 13 feet. GAO is currently assessing DOE cost estimating policies and practices and plans to issue a report based on this work later this year. DOE's actions to improve project management appear promising, but their impact on meeting cost and schedule targets may not be clear. Because all ongoing major projects have been in construction for several years, neither EM nor NNSA has a major project that can yet demonstrate the impact of DOE's recent reforms.
- Challenges managing security and safety.** Reports about the July 2012 security breach at the Y-12 National Security Complex identified numerous, long-standing and systemic security issues across the nuclear security enterprise and significant safety problems at DOE sites that have not been fully addressed. A NNSA Security Task Force and an independent panel convened at the request of the Secretary of Energy also found systemic security issues across the nuclear security enterprise, and found deficiencies in DOE's security culture and oversight, which closely matched issues GAO identified a decade earlier. GAO has ongoing work assessing DOE security reforms and plans to issue a report based on this work later this year. GAO has also found that DOE management weaknesses have contributed to persistent safety problems at NNSA sites.
- Challenges in producing reliable enterprise-wide management information.** GAO has reported that DOE does not have reliable enterprise-wide management data needed to, among other things, prepare its budget requests, identify the costs of its activities, and ensure the validity of its cost estimates. For example, in June 2013, GAO reported that while different approaches are allowed by Cost Accounting Standards, NNSA's management and operations contractors differ in how they classify and allocate indirect costs at NNSA laboratories, which limits NNSA's ability to assess cost data and meaningfully compare cost management performance across laboratories. In addition, GAO reported in June 2010 that NNSA could not accurately identify the total costs to operate and maintain weapons facilities and infrastructure because of differences among contractors' accounting practices. GAO is currently monitoring DOE's ongoing efforts to improve its capability to produce reliable enterprise-wide information.

Chairman Murphy, Ranking Member DeGette, and Members of the Subcommittee:

Thank you for the opportunity to discuss our recent work on some of the pressing management challenges that the Department of Energy (DOE) faces. DOE is responsible for executing some of the nation's most complex and technologically advanced missions, working to ensure the energy future of the United States, providing scientific and technological leadership, overseeing the nation's nuclear security enterprise, and resolving the environmental legacy of the Cold War. DOE carries out these activities through mission-based program offices including the Office of Environmental Management (EM) and the separately organized National Nuclear Security Administration (NNSA).¹ Collectively, these and other DOE offices operate dozens of government-owned, contractor-operated facilities throughout the United States.

Our prior testimonies before this Subcommittee in September 2012² and March 2013,³ as well as reports we have issued over the past decade, have highlighted various challenges that DOE components—principally EM and NNSA—face in carrying out their responsibilities.⁴ These testimonies and reports have highlighted management challenges concerning (1) EM and NNSA projects and programs; (2) security and safety at DOE sites; and (3) reliable enterprise-wide management information, including budget and cost data. Regarding project and program management, EM's and NNSA's management of major projects and contracts remains on our list of areas at high risk of waste, fraud,

¹Specifically, NNSA was created under Title 32 of the National Defense Authorization Act for Fiscal Year 2000, Pub. L. No. 106-65, § 3201 et seq.

²GAO, *Modernizing the Nuclear Security Enterprise: Observations on the National Nuclear Security Administration's Oversight of Safety, Security, and Project Management*, GAO-12-912T (Washington, D.C.: Sept. 12, 2012).

³GAO, *Modernizing the Nuclear Security Enterprise: Observations on DOE's and NNSA's Efforts to Enhance Oversight of Security, Safety, and Project and Contract Management*, GAO-13-482T (Washington, D.C.: Mar. 13, 2013).

⁴A list of recent GAO products assessing DOE's management efforts is included at the end of this statement.

abuse, and mismanagement, where they have been listed since 1990.⁵ Regarding security and safety management, we have frequently reported on security issues and safety incidents at DOE facilities—as when we testified before this Subcommittee in March 2013 on the temporary shutdown of facilities at Los Alamos National Laboratory in 2004 and, more recently, the security breach at the Y-12 National Security Complex in July 2012.⁶ Regarding reliable enterprise-wide management information, we have reported on matters such as the steps that DOE has taken to improve its budgeting and cost-estimating practices and the weaknesses that persist in these areas.

In addition to these issues, NNSA's relationship with DOE has come under renewed scrutiny. Notably, the Fiscal Year 2013 National Defense Authorization Act created the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise to examine options and make recommendations for revising the governance structure, mission, and management of the nuclear security enterprise. As the new Secretary of Energy has alluded to in recent testimony, addressing the management challenges that we and other organizations have identified, as well as clarifying departmental roles and responsibilities, will be among his top priorities.

In this context, my testimony today discusses three of DOE's most persistent management challenges: (1) management of projects and

⁵GAO, *High-Risk Series: An Update*, GAO-13-283 (Washington, D.C.: February 2013). We have shifted the focus of the high-risk designation of EM's and NNSA's contract management to major projects and away from nonmajor projects, those costing less than \$750 million. As defined in the most recent update of our high-risk series, contract management includes both contract administration and project management.

⁶For additional information on the 2004 temporary shutdown of facilities at Los Alamos, see GAO, *Stand-Down of Los Alamos National Laboratory: Total Costs Uncertain, Almost All Mission-Critical Programs Were Affected but Have Recovered*, GAO-06-83 (Washington, D.C.: Nov. 18, 2005). During the security breach at the Y-12 National Security Complex, three trespassers gained access to the protected security area directly adjacent to one of the nation's most critically important nuclear weapon-related facilities without being interrupted by the security measures in place. According to DOE's Inspector General, this security incident was unprecedented and represented multiple system failures including failures to maintain critical security equipment, respond properly to alarms, and understand security protocols. The Inspector General found that contractor governance and federal oversight did not identify and correct early indications of these multiple system breakdowns. See GAO-13-482T and DOE, Office of Inspector General, *Inquiry into the Security Breach at the National Nuclear Security Administration's Y-12 National Security Complex*, DOE/IG-0868 (August 2012).

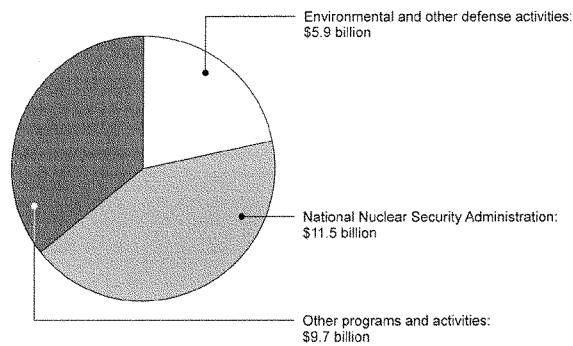
programs, (2) management of security and safety at DOE sites, and (3) reliable enterprise-wide management information, including budget and cost data. It focuses on our reports issued from January 2007 to June 2013. Detailed information about the scope and methodology used to conduct this work can be found in each of our issued reports. We conducted the performance audit work that supports this statement in accordance with generally accepted government auditing standards.

Background

DOE's missions encompass energy resources, scientific and technological development, environmental cleanup, and nuclear security. DOE established EM in 1989 to carry out the mission to clean up radioactive wastes, spent nuclear fuel, excess plutonium and uranium, contaminated facilities, and contaminated soil and groundwater that resulted from nuclear weapons production and government-sponsored nuclear energy research. NNSA, a separately organized agency within DOE, has primary responsibility for ensuring the safety, security, and reliability of the nation's nuclear weapons stockpile, including life extension programs for multiple weapon types in the U.S. stockpile,⁷ for promoting nuclear nonproliferation, and for naval reactor programs. In fiscal year 2013, EM and NNSA received about \$17 billion to support these programs and related activities, which is approximately 60 percent of DOE's total budget. Figure 1 shows the fiscal year 2013 funding for EM, NNSA, and other DOE programs and activities.

⁷The end of the Cold War caused a dramatic shift in how the nation maintains nuclear weapons. Instead of designing, testing, and producing new nuclear weapons, the strategy shifted to maintaining the existing nuclear weapons stockpile indefinitely. Life extension programs extend, through refurbishment, the operational lives of weapons in the nuclear stockpile by 20 to 30 years and certify these weapons' military performance requirements without underground nuclear testing. GAO, *Nuclear Weapons: NNSA and DOD Need to More Effectively Manage the Stockpile Life Extension Program*, GAO-09-385 (Washington, D.C.: Mar. 2, 2009).

Figure 1: Funding of DOE Programs and Activities, Fiscal Year 2013



Source: DOE, Department of Energy Fiscal Year 2014 Congressional Budget Request, DOE/CF-0084, April 2013.

Note: Funding numbers represent the annualized amount programs are authorized to obligate, prior to any adjustment for sequestration.

Contractors operate DOE sites and often conduct their work under management and operating (M&O) contracts.⁸ These contracts provide the contractor with discretion in carrying out the mission of the particular contract. Currently, DOE spends 90 percent of its annual budget on contracts, making it the largest non-Department of Defense contracting agency in the government.

⁸M&O contracts are agreements under which the government contracts for the operation, maintenance, or support, on its behalf, of a government-owned or -controlled research, development, special production, or testing establishment wholly or principally devoted to one or more of the major programs of the contracting federal agency. Federal Acquisition Regulation, 48 C.F.R. § 17.601.

DOE Faces Challenges Managing Its Major Projects and Programs

As we have reported in the past decade, DOE continues to face challenges managing its major projects and programs, which have incurred significant cost increases and schedule delays in several instances. Some recent examples include:

- As we reported earlier this month, NNSA estimates that the project to build the Uranium Processing Facility (UPF) at the Y-12 National Security Complex in Oak Ridge, Tennessee, will cost between five and seven times more than previously thought and will be completed over a decade behind schedule.⁹ NNSA estimated in 2004 that the UPF would cost from \$600 million to \$1.1 billion to construct and would start operating in 2012. As of June 2012, estimates were revised to a cost range from \$4.2 billion to \$6.5 billion and a 2023 date for the start of operations. In June 2012, the Deputy Secretary of Energy approved the latter cost range and schedule and deferred significant portions of the original project scope. Two months later, the UPF contractor concluded that UPF's roof would have to be raised 13 feet and that the start of construction would be further delayed, resulting in approximately \$540 million in additional costs. As we reported, these problems occurred because the contractor did not adequately manage and integrate the design work subcontracted to four other contractors. Given these additional costs and DOE's stated plan to pay for these additional costs from its contingency fund, it is unclear if the cost range estimate approved in June 2012 remains valid.
- In March 2013, we reported preliminary observations from our ongoing review of NNSA's Plutonium Disposition Program that highlight the need for continued efforts by DOE to improve contract and project management.¹⁰ We reported DOE is currently forecasting an increase in the total project cost for the MOX Fuel Fabrication Facility at the Savannah River Site in South Carolina from \$4.9 billion to \$7.7 billion and a delay in the start of operations from October 2016

⁹GAO, *Nuclear Weapons: Factors Leading to Cost Increases with the Uranium Processing Facility*, GAO-13-686R (Washington, D.C.: July 12, 2013).

¹⁰A key part of the Plutonium Disposition Program includes the construction of two nuclear facilities at DOE's Savannah River Site: a facility that will produce mixed oxide (MOX) fuel—a mix of plutonium and uranium—for nuclear reactors and a Waste Solidification Building to dispose of the liquid waste from the MOX facility.

to November 2019.¹¹ According to NNSA officials and the contractor for the MOX facility, inadequately designed critical system components, such as the gloveboxes to be used for handling plutonium and the infrastructure needed to support these gloveboxes, are among the primary reasons for the proposed cost increase and schedule delay. The performance baseline for the MOX facility was set several years before NNSA issued guidance in 2012 to set cost and schedule baselines only after design work is 90 percent complete.¹² As part of our ongoing review of NNSA's Plutonium Disposition Program, we are evaluating whether such guidance would have been useful for NNSA to apply to the MOX facility, as well as the potential impact this guidance might have had on mitigating cost increases and schedule delays.

- In December 2012, we reported that the estimated cost to construct the Waste Treatment and Immobilization Plant in Hanford, Washington, had tripled to \$12.3 billion since its inception in 2000 and that the scheduled completion date had slipped by nearly a decade to 2019.¹³ We reported that DOE's incentives and management controls were inadequate for ensuring effective project management, and DOE had in some instances prematurely rewarded the contractor for resolving technical issues and completing work. DOE generally agreed with the several recommendations we made to improve Waste Treatment and Immobilization Plant projects and contract management. In May 2013, we reported that significant technical challenges at the Waste Treatment Plant remained unresolved, contributing to uncertainty as to whether the project will operate safely and effectively.¹⁴
- We also reported in December 2012 on progress by EM and NNSA in managing nonmajor projects (i.e., those costing less than \$750

¹¹GAO, *Department of Energy: Concerns with Major Construction Projects at the Office of Environmental Management and NNSA*, GAO-13-484T (Washington, D.C.: Mar. 20, 2013).

¹²A project's performance baseline consists of the project's cost, schedule, and scope (the activities needed to achieve project goals).

¹³GAO, *Hanford Waste Treatment Plant: DOE Needs to Take Action to Resolve Technical and Management Challenges*, GAO-13-38 (Washington, D.C.: Dec. 19, 2012).

¹⁴GAO-13-510T.

million).¹⁵ We found that of the 71 nonmajor projects that EM and NNSA completed or had under way from fiscal years 2008 to 2012, 21 met or are expected to meet their performance targets for scope, cost, and completion date. However, 23 projects did not meet or were not expected to meet one or more of those three performance targets. We also noted that, for 27 projects, many had insufficiently documented performance targets for scope, cost, or completion date, which prevented us from determining whether they met their performance targets. As a result, we recommended, among other things, that EM and NNSA clearly define, document, and track the scope, cost, and completion date targets for each of their nonmajor projects. EM and NNSA agreed with our recommendations. As we noted in our February 2013 high-risk update,¹⁶ we have shifted our focus to major contracts and projects, but we will continue to monitor the performance of nonmajor projects.

- In April 2010, we reported that weak management by DOE and NNSA had allowed the cost, schedule, and scope of ignition-related activities at the National Ignition Facility to increase substantially.¹⁷ We reported that, since 2005, ignition-related costs have increased by around 25 percent—from \$1.6 billion in 2005 to over \$2 billion in 2010—and that the planned completion date for these activities had slipped from the end of fiscal year 2011 to the end of fiscal year 2012 or beyond. We made several recommendations to address program management weaknesses—which NNSA agreed with—and we are currently monitoring their implementation. Ten years earlier, in August 2000, we had reported that poor management and oversight of the National Ignition Facility construction project at Lawrence Livermore National Laboratory had increased the facility's cost by \$1 billion and delayed its scheduled completion date by 6 years.¹⁸

¹⁵GAO, *Department of Energy: Better Information Needed to Determine if Nonmajor Projects Meet Performance Targets*, GAO-13-129 (Washington, D.C.: Dec. 19, 2012).

¹⁶GAO-13-283.

¹⁷Ignition-related activities consist of the efforts separate from the facility's construction that have been undertaken to prepare for the first attempt at ignition—the extremely intense pressures and temperatures that simulate on a small scale the thermonuclear conditions created in nuclear explosions. See GAO, *Nuclear Weapons: Actions Needed to Address Scientific and Technical Challenges and Management Weaknesses at the National Ignition Facility*, GAO-10-488 (Washington, D.C.: Apr. 8, 2010).

¹⁸GAO, *National Ignition Facility: Management and Oversight Failures Caused Major Cost Overruns and Schedule Delays*, GAO/RCED-00-271 (Washington, D.C.: Aug. 8, 2000).

-
- In March 2009, we reported that NNSA and the Department of Defense had not effectively managed cost, schedule, and technical risks for the B61 nuclear bomb and the W76 nuclear warhead refurbishments.¹⁹ For the B61 life extension program, NNSA was only able to stay on schedule by significantly reducing the number of weapons undergoing refurbishment and abandoning some refurbishment objectives. We made a number of recommendations to improve the management of the nuclear weapons refurbishment process. NNSA agreed with these recommendations, and we are monitoring their implementation.

We are currently assessing DOE cost estimating policies and practices and plan to issue a report based on this work later this year. DOE's actions to improve project management appear promising, but their impact on meeting cost and schedule targets may not be clear. Because all ongoing major projects have been in construction for several years, neither EM nor NNSA has a major project that can yet demonstrate the impact of DOE's recent reforms.

DOE Faces Challenges Managing Security and Safety

As we testified before this Subcommittee in March 2013,²⁰ reviews of the July 2012 security breach at the Y-12 National Security Complex identified numerous, long-standing, and systemic security issues across the nuclear security enterprise, and significant safety problems remain at DOE sites that have not been fully addressed. Some examples from our recent work include:

- With regard to security, as we testified in March 2013,²¹ investigations of the security breach at the Y-12 National Security Complex performed by NNSA, the DOE Office of Inspector General, and the DOE Office of Independent Oversight found problems with NNSA's and its contractors' performance, including problems with the complex's physical security systems, such as alarms, and the training and response of the heavily armed guards supplied by NNSA's protective force contractor. In addition, both a NNSA Security Task Force and an independent panel convened at the request of the

¹⁹GAO-09-385.

²⁰GAO-13-482T.

²¹GAO-13-482T.

Secretary of Energy and composed of three former executives from federal agencies and the private sector found systemic security issues across the nuclear security enterprise. Both the Secretary's panel and the NNSA Security Task Force's leader found deficiencies in DOE's security culture and oversight, with some of these being closely matched to issues we identified a decade earlier. DOE took a number of actions in response to the security breach and the findings of the panel and task force. These actions included, among other things, immediate actions to repair security equipment, as well as longer-term actions that aim to improve NNSA and DOE oversight of security. As we testified in March 2013, in assessing DOE's actions regarding security and NNSA's new security oversight process, a central question will be whether they lead to sustained improvements in security at the Y-12 National Security Complex and across the nuclear security enterprise. We have ongoing work assessing DOE security reforms and plan to issue a report based on this work later this year.

- With regard to safety, in September 2012 we testified before this Subcommittee about NNSA management weaknesses that have contributed to persistent safety problems at NNSA sites, including lax attitudes toward safety procedures, inadequacies in identifying and addressing safety programs with appropriate corrective actions, and inadequate oversight by NNSA site offices.²² We stated in our testimony that in March 2010, in an effort to address safety problems across the nuclear security enterprise, the Secretary of Energy announced a reform effort aimed at modifying DOE's oversight approach in order to "provide contractors with the flexibility to tailor and implement safety and security programs without excessive federal oversight or overly prescriptive departmental requirements." As we noted in the testimony, DOE's safety reforms did not fully address continuing safety concerns and, in fact, may have actually weakened independent oversight. We noted, for example, that DOE's Office of Independent Oversight staff must coordinate its assessment activities with NNSA site office management to maximize the use of resources, raising concerns about whether Office of Independent Oversight staff would be sufficiently independent from site office

²²GAO-12-912T.

management.²³ In our April 2012 report, we recommended that DOE analyze the costs and benefits of its safety reform effort and identify how the effort will help address safety concerns. DOE agreed with our recommendations.

Moreover, since our September 2012 testimony, DOE's Office of Independent Oversight has raised concerns about ongoing safety issues, including reluctance by workers at NNSA's Pantex Plant to raise safety problems for fear of retaliation and a perception that cost took priority over safety, as well as inadequate controls to protect workers or the public in the case of earthquake, fires, or radiation exposures at the Y-12 National Security Complex. In addition, a March 2013 independent evaluation of safety culture at DOE's Office of Health, Safety, and Security (HSS)—which generally provides policy direction and independent oversight of safety and security at DOE sites—found that HSS staff raised concerns that the shift in recent years toward a more collaborative oversight relationship with site management had weakened HSS's effectiveness in providing independent oversight and enforcement.²⁴

²³Within DOE's Office of Health, Safety, and Security (HSS), the Office of Independent Oversight conducts periodic appraisals of the environment, safety, and health programs at DOE's sites to determine if DOE officials and contractors are complying with DOE's safety regulations and directives. During the review that led to our September 2012 report, the Office of Independent Oversight merged with the Office of Enforcement, forming the Office of Enforcement and Oversight. See GAO, *Nuclear Safety: DOE Needs to Determine the Costs and Benefits of Its Safety Reform Effort* GAO-12-347, (Washington: D.C.: Apr. 20, 2012).

²⁴DOE HSS reports directly to the Secretary of Energy and is independent of DOE program offices and NNSA. See Dr. Sonja B. Haber, et al. *An Independent Evaluation of Safety Culture at the U.S. Department of Energy Office of Health, Safety and Security—Headquarters (HSS)* (Mar. 29, 2013).

DOE Has Not Produced Reliable Enterprise-Wide Management Data

For more than a decade, we have reported that DOE has not produced reliable enterprise-wide management data needed to, among other things, prepare its budget requests, identify the costs of its activities and ensure the validity of its cost estimates. Some recent examples include:

- In June 2013, we reported that NNSA's M&O contractors differ in how they classify and allocate indirect costs at NNSA laboratories.²⁵ Although different approaches are allowed by Cost Accounting Standards, these differences limit NNSA's ability to assess cost data and meaningfully compare cost management performance across laboratories, potentially impeding NNSA's efforts to oversee M&O contractors' costs. This work built on the report we issued in June 2010,²⁶ in which we found that NNSA could not accurately identify the total costs to operate and maintain weapons facilities and infrastructure because of differences among contractors' accounting practices. We concluded that, without the ability to consistently identify program costs, NNSA did not have the ability to adequately justify future presidential budget requests and risked being unable to identify both the return on investment of planned budget increases and opportunities for cost savings. As a result, we recommended that NNSA require M&O contractors report to NNSA annually on the total costs (i.e., both direct and indirect costs) to operate and maintain weapons facilities and infrastructure.
- In July 2012, we reported that NNSA did not comply with DOE's order that defines budget formulation because the agency believed the order expired in 2003 and no longer applied to NNSA budget activities.²⁷ DOE's order on budget formulation outlines the

²⁵GAO, *National Nuclear Security Administration: Laboratories' Indirect Cost Management Has Improved, but Additional Opportunities Exist*, GAO-13-534 (Washington, D.C.: June 28, 2013). M&O contractor costs include both direct costs—costs that can be directly identified with specific cost objectives such as a program or project—and indirect costs—costs of activities that cannot be specifically identified with a specific cost objective but which indirectly support a program, such as management, administrative, and facility costs.

²⁶GAO, *Nuclear Weapons: Actions Needed to Identify Total Costs of Weapons Complex Infrastructure and Research and Production Capabilities*, GAO-10-582 (Washington, D.C.: June 21, 2010).

²⁷GAO, *Modernizing the Nuclear Security Enterprise: NNSA's Reviews of Budget Estimates and Decisions on Resource Trade-offs Need Strengthening*, GAO-12-806 (Washington, D.C.: July 31, 2012).

requirements for the department's annual budget formulation process, including that budget requests shall be based on cost estimates that have been thoroughly reviewed and deemed reasonable. However, we found that NNSA is guided by its own policy for its planning, programming, budgeting, and evaluation (PPBE) process and its associated activities, and found significant deficiencies in NNSA's implementation of the process. For example, we found that NNSA did not have a thorough, documented process for assessing the validity of its budget estimates prior to their inclusion in the President's budget submission to Congress, thereby limiting the reliability and credibility of the budget submission, but rather conducted informal, undocumented reviews of contractor-submitted budget estimates. In addition, we found that NNSA's annual budget validation review process occurred too late in the budget cycle to inform agency or congressional budget development or appropriations decisions. As a result, we made a number of recommendations to DOE and NNSA to improve the budget review process. The agencies agreed with most of these recommendations.

- In January 2012, we reported that costs for contractor-provided support functions at NNSA and DOE Office of Science sites—such as procuring goods, managing human resources, and maintaining facilities—were not fully known for fiscal years 2007 through 2011 because DOE changed its data collection approach beginning in 2010 to improve its data and, as a result, did not have complete and comparable cost data for all years.²⁸ We reported that the data for fiscal year 2011 were more complete but that changes to DOE's definitions for support functions made it difficult to compare costs across all years. We recommended several actions to streamline contractor-provided support functions at NNSA and DOE sites. NNSA and DOE agreed with these recommendations.

In conclusion, while DOE's management challenges are significant, we have noted in our recent work areas of progress. We have made numerous recommendations in our reports to address challenges such as those identified in this testimony, and DOE has agreed with and

²⁸GAO, *Department of Energy: Additional Opportunities Exist to Streamline Support Functions at NNSA and Office of Science Sites*, GAO-12-255 (Washington, D.C.: Jan. 31, 2012). DOE's Office of Science has been the nation's single largest funding source for basic research in the physical sciences, supporting research in energy sciences, advanced scientific computing, and other fields.

implemented most of them. In addition, our work has recognized steps that DOE has taken to address these challenges.²⁹ For example, in the most recent update of our high-risk series in February 2013, we narrowed the focus of the high-risk designation of DOE's contract management to EM's and NNSA's major contracts and projects.³⁰ We did so to acknowledge progress made in managing EM's and NNSA's nonmajor projects, noting that DOE continued to demonstrate strong commitment and top leadership support for improving contract and project management in EM and NNSA. We also noted that DOE had taken steps to enhance oversight, such as requiring peer reviews and independent cost estimates for projects with values of more than \$100 million, as well as to improve the accuracy and consistency of data in DOE's central repository for project data.

Over the past several years, management challenges such as those discussed here have prompted some to call for removing NNSA from DOE and either move it to another department or establish it as an independent agency. However, as we have previously stated for the record, it is our view that few, if any, of NNSA's management challenges stem from the organizational relationship between NNSA and DOE.³¹ As the new Secretary of Energy considers needed reforms in these areas, we note that DOE's management of projects and programs, security and safety, and enterprise-wide data must improve—regardless of the department's structure. We will continue to monitor DOE's implementation of actions to resolve its long-standing management challenges, including actions that we have recommended to facilitate the resolution of these challenges.

²⁹ A list of recent GAO products assessing DOE's management efforts is included at the end of this statement.

³⁰ GAO-13-283. In addition, an earlier high-risk update removed DOE's Office of Science from the scope of our high-risk area to acknowledge progress that office made in addressing human capital and resource issues and meeting projects' cost and schedule targets. See GAO, *High-Risk Series: An Update*, GAO-09-271 (Washington, D.C.: January 2009).

³¹ As we noted in response to questions for the record, a dramatic organizational change, such as making NNSA an independent agency, may be disruptive. Currently, DOE provides NNSA with a large number of services, such as personnel and headquarters building security, office space, payroll, and information technology. An independent NNSA would have to devote substantially more effort to create and then maintain these overhead functions.

Chairman Murphy, Ranking Member DeGette, and Members of the Subcommittee, this completes my prepared statement. I would be pleased to respond to any questions you may have at this time.

**GAO Contact and
Staff
Acknowledgments**

If you or your staff have any questions about this testimony, please contact me at (202) 512-3841 or trimbled@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this statement. GAO staff who made key contributions to this testimony are Jonathan Gill, Assistant Director, and Rob Grace, Nancy Kintner-Meyer, Michelle Munn, Cheryl Peterson, Jeff Rueckhaus, Rebecca Shea, and Kiki Theodoropoulos.

Selected Recent GAO Products Assessing the Department of Energy's Management Efforts

The following is a selection of GAO's recent work assessing the Department of Energy's management efforts.

National Nuclear Security Administration: Laboratories' Indirect Cost Management Has Improved, but Additional Opportunities Exist, GAO-13-534 (Washington, D.C.: June 28, 2013).

Department of Energy: Observations on Project and Program Cost Estimating in NNSA and the Office of Environmental Management, GAO-13-510T (Washington, D.C.: May 8, 2013).

Modernizing the Nuclear Security Enterprise: Observations on DOE's and NNSA's Efforts to Enhance Oversight of Security, Safety, and Project and Contract Management, GAO-13-482T (Washington, D.C.: Mar. 13, 2013).

High-Risk Series: An Update, GAO-13-283 (Washington, D.C.: February 2013).

Recovery Act: Most DOE Cleanup Projects Are Complete, but Project Management Guidance Could Be Strengthened, GAO-13-23 (Washington, D.C.: Oct. 15, 2012).

Department of Energy: Better Information Needed to Determine If Nonmajor Projects Meet Performance Targets, GAO-13-129 (Washington, D.C.: Dec. 19, 2012).

Hanford Waste Treatment Plant: DOE Needs to Take Action to Resolve Technical and Management Challenges, GAO-13-38 (Washington, D.C.: Dec. 19, 2012).

Modernizing the Nuclear Security Enterprise: Observations on the National Nuclear Security Administration's Oversight of Safety, Security, and Project Management, GAO-12-912T (Washington, D.C.: Sept. 12, 2012).

Modernizing the Nuclear Security Enterprise: Observations on the Organization and Management of the National Nuclear Security Administration, GAO-12-867T (Washington, D.C.: June 27, 2012).

Modernizing the Nuclear Security Enterprise: NNSA's Reviews of Budget Estimates and Decisions on Resource Trade-offs Need Strengthening, GAO-12-806 (Washington, D.C.: July 31, 2012).

Selected Recent GAO Products Assessing the
Department of Energy's Management Efforts

Spent Nuclear Fuel: Accumulating Quantities at Commercial Reactors Present Storage and Other Challenges, GAO-12-797 (Washington, D.C.: Aug. 15, 2012).

Nuclear Safety: DOE Needs to Determine the Costs and Benefits of Its Safety Reform Effort, GAO-12-347 (Washington, D.C.: Apr. 20, 2012).

Modernizing the Nuclear Security Enterprise: New Plutonium Research Facility at Los Alamos May Not Meet All Mission Needs, GAO-12-337 (Washington, D.C.: Mar. 26, 2012).

Department of Energy: Additional Opportunities Exist to Streamline Support Functions at NNSA and Office of Science Sites, GAO-12-255 (Washington, D.C.: Jan. 31, 2012).

Nuclear Fuel Cycle Options: DOE Needs to Enhance Planning for Technology Assessment and Collaboration with Industry and Other Countries, GAO-12-70 (Washington, D.C.: Oct. 17, 2011).

High-Risk Series: An Update, GAO-11-278 (Washington, D.C.: February 2011).

Commercial Nuclear Waste: Effects of a Termination of the Yucca Mountain Repository Program and Lessons Learned, GAO-11-229 (Washington, D.C.: Apr. 8, 2011).

Nuclear Weapons: National Nuclear Security Administration's Plans for Its Uranium Processing Facility Should Better Reflect Funding Estimates and Technology Readiness, GAO-11-103 (Washington, D.C.: Nov. 19, 2010).

Recovery Act: Most DOE Cleanup Projects Appear to Be Meeting Cost and Schedule Targets, but Assessing Impact of Spending Remains a Challenge, GAO-10-784 (Washington, D.C.: July 29, 2010).

Nuclear Weapons: Actions Needed to Identify Total Costs of Weapons Complex Infrastructure and Research and Production Capabilities, GAO-10-582 (Washington, D.C.: June 21, 2010).

Department of Energy: Actions Needed to Develop High-Quality Cost Estimates for Construction and Environmental Cleanup Projects, GAO-10-199 (Washington, D.C.: Jan. 14, 2010).

Nuclear Weapons: Actions Needed to Identify Total Costs of Weapons Complex Infrastructure and Research and Production Capabilities, GAO-10-582 (Washington, D.C.: June 21, 2010).

Nuclear Waste Management: Key Attributes, Challenges, and Costs for the Yucca Mountain Repository and Two Potential Alternatives, GAO-10-48 (Washington, D.C.: Nov. 4, 2009).

Information Security: Actions Needed to Better Manage, Protect, and Sustain Improvements to Los Alamos National Laboratory's Classified Computer Network, GAO-10-28 (Washington, D.C.: Oct. 14, 2009).

Nuclear Security: Better Oversight Needed to Ensure That Security Improvements at Lawrence Livermore National Laboratory Are Fully Implemented and Sustained, GAO-09-321 (Washington, D.C.: Mar. 16, 2009).

Nuclear Weapons: NNSA and DOD Need to More Effectively Manage the Stockpile Life Extension Program, GAO-09-385 (Washington, D.C.: Mar. 2, 2009).

Nuclear and Worker Safety: Actions Needed to Determine the Effectiveness of Safety Improvement Efforts at NNSA's Weapons Laboratories, GAO-08-73 (Washington, D.C.: Oct. 31, 2007).

Nuclear Safety: Department of Energy Needs to Strengthen Its Independent Oversight of Nuclear Facilities and Operations, GAO-09-61 (Washington, D.C.: Oct. 23, 2008).

National Nuclear Security Administration: Additional Actions Needed to Improve Management of the Nation's Nuclear Programs, GAO-07-36 (Washington, D.C.: Jan. 19, 2007).

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

**Obtaining Copies of
GAO Reports and
Testimony**

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's website (<http://www.gao.gov>). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to <http://www.gao.gov> and select "E-mail Updates."

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <http://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on Facebook, Flickr, Twitter, and YouTube. Subscribe to our RSS Feeds or E-mail Updates. Listen to our Podcasts. Visit GAO on the web at www.gao.gov.

**To Report Fraud,
Waste, and Abuse in
Federal Programs**
Contact:

Website: <http://www.gao.gov/fraudnet/fraudnet.htm>

E-mail: fraudnet@gao.gov

Automated answering system: (800) 424-5454 or (202) 512-7470

**Congressional
Relations**

Katherine Siggerud, Managing Director, siggerudk@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800, U.S. Government Accountability Office, 441 G Street NW, Room 7149, Washington, DC 20548



Please Print on Recycled Paper.

Mr. MURPHY. Thank you. I will begin questioning here and recognize myself for 5 minutes.

So Mr. Poneman, let me understand your role here. You are Deputy Secretary and therefore the Chief Operating Officer of the Department, and you had a direct role in managing the program execution and the mission-support functions of the agency and directly responsible to the Secretary for managing and implementing these organizational challenges, and you have been doing it for about 4 years. So lots of firsthand experience. So would you explain why the Under Secretary for Performance and Management will help improve project management in the Department overall?

Mr. PONEMAN. Yes, sir. I am very excited about this opportunity precisely because, as you noted, I have been the chief operating officer, and all of the burden you, yourself, and ranking members have identified as well as those we have just heard from the other witnesses show you what we are up against. We had frankly improvised an Associate Deputy Secretary in the first term to try to enhance our capacity to tackle these problems, recognizing the full weight of the problems and, frankly, having the leadership of Secretary Moniz from his earlier experience at the Department as Under Secretary, including his more recent experience writing very thoughtfully about how to organize the Department better to tackle these challenges as a member of the President's Council of Advisors on Science and Technology.

It was clear that the opportunity presented by taking one of the available Under Secretary positions in the Department and having that individual, an individual of authority and in whom the Secretary and myself could propose confidence to work full time on these problems was absolutely critical to getting our arms around this very daunting agenda.

Mr. MURPHY. I appreciate the level of what you are facing here too, and so how would we be able to measure progress, and are you setting some performance baselines?

Mr. PONEMAN. So it would depend on the precise mission area. There are some, Mr. Chairman, across-the-board kinds of metrics that we can apply, and let me just start from the outset and responding also to the ranking member's comment, this aspect of metrics and cost estimation and measurement of performance is absolutely critical to our successful. If you don't measure it, you don't manage it.

But let me just take the largest example, these very large, complex capital projects. We have to have a system of evaluation to measure continuously whether we are on or off budget, whether we are on or off schedule, and, at the same time, to measure whether we are on or off meeting the spec of the project itself. That is to say, it is not enough to have a project being on schedule and on budget if it doesn't do the job, and Mr. Trimble alluded to this peripherally in his comments. So we have to make sure that we take the orders that are in place in terms of cost estimation under Order 413-B and actually measure it and have them upload it into our business management systems that we put into our quarterly reviews of the business quarterly reviewed by the Government Performance and Requirements Act, and that is a start on how we are going to measure our performance.

Mr. MURPHY. Thank you. Two other quick questions I want to get into in terms of lessons learned and remanaging things. Other the past 3 years, this committee has dealt with a number of cases—Solyndra, Fiscar, A123—where the loan or grant assessments just turned out to be plain wrong, and we have had a number of people before this committee talking about this. You had a policy interest to push these out, but the data, as it turns out, just didn't add up for this. So how will the management changes ensure that decisions are made based on sound analysis moving forward?

Mr. PONEMAN. Well, first, Mr. Chairman, let me note that the portfolio as a whole, which has been very thoroughly reviewed by many including by the late Mr. Herb Allison, is actually performing quite well. We have the largest wind farm in the world operating quite well, the largest photovoltaic plant operating quite well. Tesla has repaid its loan 9 years early. We do the best due diligence we can. These programs are intended to promote innovation, and unfortunately, not every case works out. That having been said, we have done a number of things recommended by Mr. Allison and we have brought new leadership and new staffing inside the Loan Program Office to make sure that, again, we have a very strong ability to monitor the existing portfolio, that we have a new risk officer set up to look precisely at the questions of risk that you are addressing, and that we have a much more open and transparent set of data flowing up from the program office to the Secretary and the Deputy Secretary.

Mr. MURPHY. I appreciate that. It is something we will be watching. A lot of data was there before. We just thought a lot of it was also ignored. Multiple departments are saying the Solyndra loan wasn't a good idea. So it isn't just a matter of having the data but making sure you have a system in place to have honest reassessments of that.

One other quick question in my time. In your testimony you said that President laid out a commonsense plan to reduce the effects of climate change by cutting dangerous carbon pollution, as you put it, increasing the production of clean energy and doubling down on energy efficiency. I noticed the Department released a new rule for microwave oven efficiencies and included a calculation for the social cost of carbon, and I would like to know if the agency considered doing a formal notice and comment to the microwave rule before using this figure. Did anyone in your office participate in any discussions about this social cost of carbon before using it in the DOE microwave rule, and can you please submit to us emails and documents to help us understand why that was done.

Mr. PONEMAN. Mr. Chairman, I was present for some discussion of social costs of carbon. I was not—I would have to get back to you with details on how it related to that particular rule.

Mr. MURPHY. That is something this committee is going to want to review in an open and scientific way.

Mr. PONEMAN. We would be very happy to supply that.

Mr. MURPHY. I see my time is expired. Now we will go to Ms. Castor for 5 minutes.

Ms. CASTOR. Thank you, Chairman Murphy.

It is very important and a positive sign that the Department of Energy has taken action where with the reorganization to address

the persistent flaws in management and oversight of the Department of Energy. We have seen that in many cases there is duplicative activity and unnecessary expenditures because of lack of coordination effective oversight of contractors, and DOE has been facing these problems for years, and your predecessors in multiple Administrations from both political parties have made little headway. So is this new Under Secretary of Management and Performance a sign that the Department of Energy has learned the lessons of the past?

Mr. PONEMAN. Congresswoman, we are always seeking to learn lessons from the past. I personally am learning lessons every single day, and our management principles require us to do that.

Ms. CASTOR. What makes it different this time after decades?

Mr. PONEMAN. Well, if I may suggest a couple of things, Congresswoman. Number one, both Secretary Moniz and, as the chairman alluded, I have been working on this for some period of time so we understand from having witnessed firsthand some of the very problems that you all have describe, what has caused some of those problems. We believe that the structure the Secretary has designed here is well suited to given us the capacity to do better in achieving these results, and I would actually echo Mr. Trimble's comments. The test here isn't, can we impose a new bureaucrat structure on the building. The question, can we sustain it? The results, in our judgment, will be the proof in the pudding. If we can in this reorganization, which we think suits the problems well, start to deliver those kinds of results this committee and our Department want to see, that will take root in the Department and the people, the professionals will—

Ms. CASTOR. Give us a specific example, something the IG or GAO has highlighted that you think or you can show early signs in progress.

Mr. PONEMAN. I will give you one very specific example. Many of you have alluded to the fact that since 1990 we have been on a high-risk list. The GAO has given us five specific taskings on what it takes to get out from under the high-risk list. The Office of Science got out in 2009. I will tell you, Congresswoman, we were very gratified that the projects up to \$750 million came out from under? Why did that happen? Because they at GAO said what you need to do is break down very big projects to chunkable sizes that can be managed more effectively. That is simply one example of many I could cite of where we have taken the advice from the GAO, applied it and actually obtained a much better result in terms of projects coming in on budget and on time.

Ms. CASTOR. And Mr. Friedman, I know you agree that the contractor workforce needs more vigorous oversight at the Department of Energy, correct?

Mr. FRIEDMAN. I do.

Ms. CASTOR. You have stated that again and again. What recommendations—highlight your most important recommendations from the IG's office to ensure that DOE contractors are meeting their performance standards.

Mr. FRIEDMAN. Well, I think the Deputy Secretary referred to it and others have as well, and that is the question of sustainability. I think it is an excellent point. I have been around long enough,

Ms. Castor, unfortunately in a sense to have seen the Department through valleys and mountaintops for years, and invariably a fix is imposed or attempted but it loses power after a period of time. We get lethargic, or the Department gets lethargic. So sustainability, it seems to me, in that process is key. So if the reforms the Deputy Secretary has described, if they address the problem, if we sustain them going forward, we really will have moved the Department forward.

Ms. CASTOR. In your testimony, you noted that contractor weaknesses were not effectively communicated to senior management officials. Do you believe that the new Under Secretary for Management and Performance could help strengthen the lines of communication?

Mr. FRIEDMAN. I hope that is the case, and it is more than just the mere establishment of the Under Secretary's position, which I think is an interesting concept and I think has great possibilities. It has to permeate the entire organization, that people at all levels in the field, in headquarters feel that they can surface problems to the Department's leadership in a way that, number one, of course, they won't feel they will be subjected to retaliation, but more importantly, that they can see meaningful steps taken in response to that information to try to address the underlying root causes of the problems.

Ms. CASTOR. Thank you.

Mr. Trimble, GAO has reported that DOE's contractor assurance systems are producing inconsistent results across the agency. Can you elaborate on this finding, and what are the ramifications of these inconsistencies and how can DOE improve?

Mr. TRIMBLE. Well, I think the cost overruns and schedule delays are indicative of that. I think what we have seen in our ongoing work looking at MOX and UPF is, some concerns where there are—the information system being reported to the government, there are red lights on the dashboard indicating problems, and the key question we are getting at is, what is being done when those lights go off and are people recognizing them and are they taking action and is the action effective. And so again, it is sort of the proof-in-the-pudding argument. It is, you can establish systems but then do you have processes to act on the information you get and does the organization support that. There is a parallel here between, I think, between the problems we have seen on the security side where the culture has been highlighted where you can have rules, but if the organization and culture is not to abide by the rules, things don't happen. There is that same challenge here on cost and schedule management. You can have processes and organizations but everyone has to walk the talk for it to work, and that is sort of where the, you know, again a part of the challenge facing the Department is going to lie.

Mr. MURPHY. Thank you. The gentlelady's time is expired. I will recognize the vice chairman, Dr. Burgess, for 5 minutes.

Mr. BURGESS. Mr. Trimble and Inspector Friedman, let us follow up on that about walking the talk a little bit. How do you know, Inspector Friedman, that stuff is going to get reported in the management plan you are proposing that now there is greater flexibility and freedom for people to report problems that are identified?

Mr. FRIEDMAN. Dr. Burgess, I am not instituting—I don't manage the Department obviously, and I am not instituting the new process; the Deputy Secretary and the Secretary are. But I think I understand your question. I think the test will be if the very core issues that we are talking about here and the reason that you are holding—one of the reasons that you are holding this hearing, if those issues are addressed through an open line of communication and we can demonstrate that the communications are working, we reduce the number of complaints we get from employees who say that their concerns are not being addressed. We can gauge that quite effectively as to whether the process is working.

Mr. BURGESS. And so from that, do you have confidence that the process is working?

Mr. FRIEDMAN. At this point, I don't have that confidence. If we reconvene at some point in the future, if we have time to see the new system in place and take a look at it and evaluate it, I will be more than happy to come back and give you my review.

Mr. BURGESS. Well, I suspect we will. You know, you have been kind to be with us every times and I suspect that we will have an opportunity to talk.

Secretary Poneman, can you address that?

Mr. PONEMAN. Yes, sir. It is a work in progress. We actually measure it quite regularly. We have self-evaluations. We have third parties come in, and they evaluate. I personally have spent hours and hours speaking to 4,000 people out at Hanford making sure people understand there can be no retaliation for people coming forward expressing their concerns. We had an—I put out quarterly a notice saying anyone who has a differing professional opinion can be heard, and we actually had the experience of a differing professional opinion be sustained as we reviewed it. There is never grounds for complacency. As others have said, it is a cultural issue. We have to keep working at it. We will never be perfect but we are trying to improve it at a cultural level, at an institutional level, and we are trying to measure it on a periodic basis. You made the very good point in your opening statement, we have to measure these things or we are not going to know if we are doing better.

Mr. BURGESS. Yes. A chance to measure is a chance to cure.

Mr. PONEMAN. Your point about the diagnosis is critical, by.

Mr. BURGESS. Well, just as far as developing that culture of accountability within the Department, how do you feel that that is going? I don't get the impression from Mr. Trimble that is quite where it needs to be but where do you think?

Mr. PONEMAN. I think, Congressman, there too it is a work in process. Actually, the sunshine of some of the things the President has required in terms of disclosure of our results on the Internet I think is a very powerful tool. As has been noted by many members of this committee, much of work is performed by contractors. They are indeed sensitive to how their work is evaluated and how that is disclosed. Again, I think we have improved.

One critical thing I would like to note, Congressman, is, we have made it a policy of the Department to align the taxpayer incentives and interest with those of the contractors so we cannot get into a situation in which a contractor can do well and the taxpayer do poorly.

Mr. BURGESS. Let me ask you a question about that, because obviously there is a lapse. They involve scientists, and you want your scientists to do your best work, and how do you ensure that that is deliverable for the President and the Congress and the taxpayer does not get in the way of delivering on the scientific product required?

Mr. PONEMAN. You have just put your finger on an absolutely critical factor. People sometimes lose sight of the fact that these labs have produced the most awesome intellectual property in history beginning with the weapon that won World War II. The last thing we want to do is to stifle that creativity. So what we need to do is give these people the tools and the authority to get their work done, but we have to have in exchange transparency into what they are doing because we are the owners on behalf of the taxpayer to have the transparency to hold them accountable to the results that we expect from them.

Mr. BURGESS. And since you brought up Los Alamos, I took a visit out there in 2005. It was a long time ago. And their security detail, they apparently have been tested and found wanting at some point in the past. They were fairly sensitive about it and demonstrated that sensitivity to me with what they were able to do, which is why we had the hearing on Y-12, I didn't understand how those people could be in the audience that day. I thought they should be interred in someplace because of the response of the security team when you wander into the kill zone. You don't ask questions; you take them out. So what am I missing on that?

Mr. PONEMAN. Congressman, you are not missing a thing. We discussed this before. That was an unforgivable breach. The cameras were out. The guards were not responding properly. We have taken all of the immediate steps that we could including aligning the security force subcontract under the management and operations contract including removing the responsible individuals, but we are continuing, as I said earlier, to look at the broader systemic changes that we need to do to make sure, per Mr. Trimble, that these changes that we have started are sustained.

Mr. BURGESS. Would you give advice to the protesting public to not try this again?

Mr. PONEMAN. Yes, I surely would, because what was a very terrible, terrible episode could have been tragic with loss-of-life consequences.

Mr. BURGESS. Yes, it could. Thank you, Mr. Chairman. I will yield back.

Mr. MURPHY. Thank you. Mr. Lujan for 5 minutes.

Mr. LUJAN. Mr. Chairman, thank you very much, and thank you and to the ranking member for calling this important hearing.

Mr. Poneman, could you help me understand how the reorganization is going to help with management of the national labs? There are a number of new entities concerning the labs that have different responsibilities and reporting chains. These include the National Lab Operations Board, which reports to the new Under Secretary of Management and Performance, the National Lab Policy Council reporting to the Secretary, in addition to the Under Secretary for Science and Energy has primary responsibility for many labs while the Under Secretary for Nuclear Security has responsi-

bility for the rest. Is this going to result in more inspections and transactional oversight at the labs or less but more effective inspections and oversight, as a number of experts have called for?

Mr. PONEMAN. Congressman, I don't think we will—the metric won't be number of inspections per se but rather the results which will endeavor to measure, but let me try to make sense of what sounded a bit intensive in terms of the kind of oversight from your comment.

The National Laboratory Council is absolutely critical to the point Dr. Burgess just raised. We need to make sure that we get together with all the lab directors, the fountainhead of our innovation, and think through what are we trying to do as a Nation in support of the President. The very first meeting that Secretary Moniz had out of town in a rare time we traveled together was to Oak Ridge to meet with all of them. That is a big thing, what we are trying to do. The lab operations board that will report to this new Under Secretary will deal with all of those issues like real estate and IT purchases and cybersecurity that will enable the smart scientists to do the innovative work. So actually, it is a much more operational hands-on thing. I don't think you are going to find it a cluttered system in practice, but we would be very happy to stay in touch with you as we roll it forward.

Mr. LUJAN. That is what I am hoping, that we don't have a cluttered system, that there is not just layers and layers that are put on top of each other but that we do follow many of the suggestions that have been put forth. That way is effective, that the time that is used to be able to go in and look is effective and we are able to identify things. Do you foresee any structural changes to NNSA besides moving Environmental Management from NNSA to the Under Secretary for Management and Performance?

Mr. PONEMAN. Congressman, I will make two comments. Number one, as I have alluded to, we have received further thoughtful input from a number of wise people including some of whom I think have visited with this committee on structural changes to enhance our security, our physical security, especially for category I nuclear materials, and we are actually, even as we speak, having people look deeply at that so Secretary Moniz can make some decisions in the near term. That said, as you well know, there is a congressional mandated panel that has been empowered to look at these governance issues, and as they continue their work, we will of course be in touch with them and look forward to hearing what their results are and seeing what further actions, if any, are required.

Mr. LUJAN. Under the reorganization, the technology transfer coordinator would be put within the Office of the Under Secretary for Science and Energy. While this Under Secretary does have responsibility for most of the labs and basic and applied science programs at the Department, it does not include the NNSA laboratories. What will be done to ensure that tech transfer coordinator will be able to coordinate technology transfer activities across the entire Department, which spans two Under Secretaries and will not prevent the NNSA laboratories from participating?

Mr. PONEMAN. Congressman, the entire thrust of the reorganization has been to put stronger leadership at the top, precisely so that we can enhance our ability to catch these cross-cutting issues.

I can tell you because we have already been doing it, this is the practice that we have already engaged in, and one example which would apply equally when we get the new tech transfer coordinator is cybersecurity. We have cybersecurity all across all portfolios of the Department, and we have now constituted the Cybersecurity Council to make sure that we get that kind of cross cut, that we don't miss a bet in terms of getting the tech transfer. Some of the innovation out of the national labs could be very, very important in the science and energy portfolio.

Mr. LUJAN. I am certainly hopeful that there won't be more burdensome restrictions put on the NNSA laboratories versus the other labs when it comes to tech transfer, so I am encouraged by that, Mr. Poneman.

Mr. Friedman, there was an incident in which in New Mexico you identified a contractor that was overpaid. You brought it to the attention, based on a request from NNSA, where minimum requirements have to be met by contractors in order for these contractors to get paid. Can you talk about that and what we can do to prevent that from happening in the future?

Mr. FRIEDMAN. Well, one of the problems we have, Mr. Lujan, DOE has an incredible structure of prime contracts and a significant subtext of that is the subcontractors and secondary and tertiary subcontractors that it has. One of the responsibilities of the prime contractors is in fact to make sure that the subcontractors are responding appropriately, that are paid appropriately, and the taxpayers are treated fairly in this process. One of the promising things that we have seen is a number of referrals from prime contractors including those in New Mexico, if I might, of cases where they believe the subcontractors have not acted appropriately in one way or other. So we take those cases very seriously, and a lot of our work is done with the subcontractors to the prime contractors, that is the national labs in the case of New Mexico.

Mr. LUJAN. I appreciate that. And Mr. Chairman, this may be an area where the committee as a whole, that we can try to get all of the additional information or whatever has not been released thus far in regards to this instance and maybe some others so that we can see if there is going to be any additional information released on this matter or whatever has not been public. So I appreciate that, Mr. Chairman, and look forward to working with you and the committee on this.

Thank you again for the responses.

Mr. BURGESS [presiding]. I acknowledge the gentleman's comments and now recognize the gentleman from Virginia, Mr. Griffith, 5 minutes for questions, please.

Mr. GRIFFITH. Thank you very much, Mr. Chairman.

The other chairman asked some questions that raised some issues for me that I hadn't really planned on getting into today, but I guess this is as good time as any.

When you talk about trying to, you know, reorganize and make things more efficient, are you just rearranging the deck chairs or are we actually having some personnel changes? And let me tell you what I am referencing in specifics. I have always been bothered by the Solyndra situation, and the response, as yours was today, is, you know, we try to do what we can and our due dili-

gence, etc. And I accept that notwithstanding the fact, as the permanent chairman said of this subcommittee, but there were warning signs out there. I have always been concerned with the subordination issue and the fact that to me, in my opinion, it was horrendous legal advice. I really don't think it was well done, and I am wondering if that department is also being reorganized in any way to try to make sure that when Congress says that money is not to be subordinated, that that doesn't mean you can do a loan at 11 and subordinate at 12 because you didn't do it at the time of the closing, and that was basically what we heard in that investigation. Can you answer that for me?

Mr. PONEMAN. Let me offer a couple of comments, Congressman. First of all, in terms of your appropriate question of the structural changes, we didn't start with this reorganization; we started, of course, with the Allison report. As you saw, he said the health of the portfolio was strong. That said, he had a number of very important practical suggestions in terms of transparency, accountability, customer service, portfolio management, and many of those have been implemented, point one. Point two, that included making sure we had very highly capable people in the positions. Point three, a lot of those people are very much focused on portfolio management, and there is a brand-new leader of the Loan Program Office, and finally, in this reorganization, Secretary Moniz wants to make sure that the Credit Review Board itself, which sits above the Credit Committee, is strengthened so that we will have the ability in the normal kind of boardroom fashion of doing due diligence on transactions to make sure we bring those kinds of disciplines to bear.

Mr. GRIFFITH. One of my concerns there was, it appeared that the legal counsel that was being given was seeing—and this is my interpretation, nobody ever said this—saw itself as trying to come up with a legal opinion to justify what the Department of Energy wanted to do as opposed to protecting the American taxpayers, and I would hope that the legal department would see as a part of their duty at the very least is to make sure that what they are doing is lawful because the laws that Congress pass are intended to protect American taxpayers, and the decision to subordinate cost \$170 million to the American taxpayers.

Mr. PONEMAN. Congressman, I would have to dig back into the details. I would just say my recollection of the legal advice received at the time was there was a higher chance of a higher recovery from a going concern than from a fire sale, and the question at the time that it was presented was whether subordination would meet the statutory requirement that the Secretary was obliged to seek the maximum recovery for the taxpayer. But we can obviously follow up on that.

Mr. GRIFFITH. And I would like you to follow up on what has happened because while I think that may have been the party line, so to speak, when you looked it, the rules that were required to follow and make that decision, even though subordination was not lawful, the following rules in other situations to do that were also not followed, so it was just a big mess and it cost the taxpayers a lot of money.

Inspector General, in that same regard, at the time I asked some questions that you were unable to answer for me because the inves-

tigation had not yet been completed. I am not asking you to answer questions that you can't and probably use another day to get into that, but has that investigation been completed on the internal workings at the Department of Energy in regard to the subordination issue?

Mr. FREIDMAN. Mr. Griffith, both the Justice Department and our office are prepared to say that there is an active investigation, criminal investigation ongoing, and as much as I would love to be able to answer your question, and I truly would—

Mr. GRIFFITH. I just wanted to know if it was still ongoing. I appreciate that. Thank you very much.

Back to you, Deputy Secretary. As a part of this, another issue has been brought to my attention, and I am not going to tell you I am well versed in it, but it does concern me, and that relates to the National Nuclear Security Administration and the National Security Complex and Pantex plant management contracts, and in that process, GAO has said that there was an upheld—they upheld a procurement protest. My concern on that is, is that apparently, according to a press report that has been brought to me, in three instances, the source selection authority at the 11th hour changed some of the criteria, and I know there are all these big companies jockeying for position, but at the 11th hour three matters were changed, and that changed who got the contract. On its face, that doesn't smell right to me. Are you all looking into that matter and trying to make sure those things don't happen?

Mr. PONEMAN. Congressman, precisely because if I understand which procurement you are talking about, it is still open and we are still working on it. I cannot comment on what we are doing, but obviously we do everything possible to make sure that we hew to all of the requirements, statutory, regulatory and ethical, that apply.

Mr. GRIFFITH. Well, you can understand my concern. When rules are changed at the last minute, it is hard for people to honestly compete.

Mr. BURGESS. The gentleman's time has expired. We will go to the gentleman from Texas, Mr. Green, 5 minutes for your questions, please.

Mr. GREEN. Thank you, Mr. Chairman.

In today's testimony from the GAO and the Inspector General, we have heard how many instances of significant cost increases for major environmental management and nuclear programs, cases where actual contract costs far exceeded the original cost estimates. This is a problem we need to solve in order for the DOE and Congress to make informed decisions about allocating resources. We must have accurate and reliable information.

Mr. Trimble, can you give us some examples of how inaccurate cost estimates impact the agency's ability to function efficiently and effectively?

Mr. TRIMBLE. Sure. Aside from the examples I gave in my testimony, you know, the obvious ones—MOX, WTP, UPF—you have other issues involving, say, projects, for example, the Pit disassembly building, which entered design. It was supposed to be an adjunct to the MOX facility, \$730 million spent before it was canceled. I think what is interesting about these cases is that in all

of them, at the very beginning, the critical decision point one, there is no requirement currently for an independent cost estimate. So DOE can start a project and go a long time before it hits the decision point two requirement where you actually have an independent cost estimate requirement. But we have already spent tens if not hundreds of millions of dollars on these projects. So you start on a path. The control weakness hits you early. You spent a lot of money and it takes a long time before you are in a position to rectify that.

Mr. GREEN. What are the reasons we have seen so many cost increases in the past, and how can DOE do a better job of producing cost estimates that are accurate?

Mr. TRIMBLE. Well, in the past we have recommended that at CD-1, the decision point early in the process, that there an independent cost estimate. We have had past recommendations, for example, to have a cost estimating policy. Right there is guidance but there is not a policy. The Department had guidance. We first reported on this issue in 1983. In the mid-1980s, they instituted a policy. They rescinded the policy around 1995. They put guidance into their processes but there is no cost policy which would then tell contractors, hey, you are coming up with an estimate for this project, these are—this is how you are going to do the estimate or these are the rules I want to see, what are the marks you have to hit to give me a quality estimate. Right now we don't have that. There is guidance that creates looseness in the system and problems.

Mr. GREEN. Deputy Secretary, obviously DOE is not the only Federal agency that has trouble with cost estimates. What steps has DOE taken to improve the reliability and uniformity of its cost estimates?

Mr. PONEMAN. A couple things, Mr. Chairman. I think it is very important to point out a clarification here. Under our directive 413-B, which applies to the big capital projects, for the first time we insisted that each of these main gates of identifying the mission, picking the main technology and so forth that we do have cost estimation. There are different terms of art of what you call it, but one of the reasons, frankly, sir, why we have gotten in trouble is because people have said, oh, this is too early in the project, you can't tell anything at this point, to which I say, you know, if you are going to St. Louis or Mars, you should be able to give me the right number of zeros, OK. So we actually have tried, and I invite you to look at 413-B and we will have your staff briefed on it. That tries to get at exactly the problem that Mr. Trimble has identified in response to your question.

Also, it is not only a question of having the requirements in there but a question of having the metrics, and so instead of requiring a constant manual uploading of data from the contractor to the Federal oversight and so on, we are trying to, through what we call the PARS software system, make sure that the very same data that is entered by the contractor is transparent from, as we say, from stem to stern and that we have got real-time accurate data on what is happening on the ground because the real problem enters into it, sir, when we get a gap in the reporting of what is happening on the ground and when it comes to our attention.

Mr. GREEN. Mr. Trimble, do you think that is progress, and is it the solution to the issue identified?

Mr. TRIMBLE. Well, I think we may disagree a little bit on how robust the 413 requirements are at CD-1, and I think that that would be a great question for the record, and we can give you a more robust answer on that.

Mr. GREEN. I appreciate that. Thank you, Mr. Chairman. I yield back.

Mr. BURGESS. The gentleman yields back his time. The chair recognizes the gentleman from Texas, Mr. Olson, 5 minutes for questions, please.

Mr. OLSON. I thank the chair, and good morning to our witnesses. This is not news, gentlemen, but one of my responsibilities under the Constitution of the United States is to provide oversight on behalf of the people of Texas 22 of the Executive Branch agencies and oversight of the Department of Energy. The Department's budget remains in the tens of billions of dollars. It covers topics as diverse as financial support for emerging solar power technologies to safeguarding technology responsible for the most potent weapons mankind has ever created. Guaranteeing commonsense execution of DOE's mission is not just needed to protect taxpayer dollars, it is needed for national security. There have been problems in the past but with the new Secretary and a new organizational structure, I see this hearing as the first step to prevent problems in the future.

And my first question is for you, Mr. Friedman—I am sorry. This is for you, Secretary Poneman. In Inspector General Friedman's testimony, he laid out a number of suggestions that he recommends as solutions to some of DOE's problems, specific ideas from reducing duplication at NNSA to reevaluating security. And many of these sound like excellent suggestions but they are similar to suggestions from 2012. My question, sir, is, what is the process at DOE for considering suggestions that the Inspector General makes? What keeps them from being heard but ignored?

Mr. PONEMAN. Congressman, with all due respect, they are heard but they are very, very closely heeded to, and under the Inspector General Act, if my memory serves me, of 1978. This is an absolutely critical function in the Department. I would be the first to tell you that in an organization, as you say, about a \$25 billion budget, 115,000, 110,000 people working, we have a lot, a lot of problems, and one of our critical tools is the Inspector General reports. They come in, they get seen at the highest levels by the Secretary and myself, and we take them very, very seriously. We have not, and I suspect we never will, hit 100 percent in terms of executing against all of the ideas that come in, and in fact, sometimes we have responses and we have different approaches and so forth. But I cannot exaggerate—it is an invaluable tool, and we will continue to use it to enhance our performance.

Mr. OLSON. Thank you, sir. And I am a Texan, so I am not looking to provoke a little battle here, but Mr. Friedman, I would appreciate your comments on the issue as well.

Mr. FRIEDMAN. I couldn't have posed the question better if I had been sitting where you are sitting and you were sitting where I was sitting, Mr. Olson.

Mr. OLSON. You don't want my seat, trust me.

Mr. FRIEDMAN. The Deputy Secretary, I have known him for a number of years, and he has been extremely responsive to our reports, and the way he has described it is absolutely accurate. I said in my testimony that the five recommendations for cost savings that we have enunciated in 2 years sequentially are politically challenging, they are highly controversial and very difficult for anyone to grasp, get their hands around and really implement. So I am a realist, and I understand that while I hope they're considered and I hope they receive serious thought, I anticipate that implementation if it ever is to happen is going to take some time.

Mr. OLSON. Well, we need to correct these problems, as I mentioned. Some of these issues are very important to our national security and our country.

One further question for you, Secretary Poneman. You and Secretary Moniz held a DOE town hall, a forum that showcased some of your new organizational changes. There are two points that were discussed that were better communication and improving DOE's "tooth to tail ratio." Reducing redundancy and streamlining your work are both noble goals. However, it seems to me that there have been long questions about this broader philosophical approach that has been taken in running this Department. How far will this reorganization move DOE forward in improving mission execution? What are some of the next steps that are being considered?

Mr. PONEMAN. Well, Congressman, it was just announced here a week or so ago, so it is still in early stages. The first thing we have to do is to make sure that we have got the people encumbering these new positions that will have the capacity to achieve these outcomes—point one. Point two, some of the things we have already started, and the first thing I will just note because we haven't had the meeting, I chair the Cybersecurity Council, which is crossing cutting. Secretary Moniz himself just attended ex officio to show his commitment to this cross-cutting effort. We have got to get better in terms of various IT systems that they can talk to each other so that they can be robust in making sure that our most secret secrets that have you said are our sacred obligation to protect are fully protected. It is going to be a work in progress, and we welcome—I sincerely mean this—we warmly welcome the oversight of this committee to make sure that we stay on track.

Mr. OLSON. Thank you. I have run out of time, but what a great comment about the Secretary. Being a military officer, one thing the leader can do is get involved with the troops and show them he cares, and it sounds like he is doing that.

I yield back the balance of my time.

Mr. MURPHY. Thank you. I now recognize the gentleman from New York, Mr. Tonko, for 5 minutes.

Mr. TONKO. Thank you, Mr. Chair.

For the first time, GAO earlier this included climate change in its high-risk list. GAO recognized the reality of climate change and found that the Federal Government is not well positioned to address the fiscal exposures presented by climate change. I would like to hear from GAO about the risk of inaction and how the Federal Government can respond to this given threat.

Mr. Trimble, why did GAO decide to include better management of climate risk on its high-risk list this year?

Mr. TRIMBLE. The addition of climate change, it is really—the way we phrased that is the adaptation of response to climate change from a Federal perspective, and the rationale on that is really just looking at the potential Federal exposure to the potential liabilities that are associated with extreme climate events. Those changes run from sort of being the insurer of last resort. They involve being a significant landlord of large Federal assets such as NASA facilities, DOE facilities, and they also involve sort of agricultural and Federal lands issues. So when you look at sort of the portfolio, sort of chits or pieces that we have in the game, all of those areas have potential implications. Changing climate has a potential implication for all those in terms of the Federal Government's exposure to liabilities.

Mr. TONKO. And you noted in the high-risk report that climate change adaptation is a risk mitigation strategy to help protect vulnerable communities. If we fail to do things like raise a river or coastal dykes or build higher bridges, what kind of adverse impacts might be experienced?

Mr. TRIMBLE. Well, absolutely, and I think that is what is interesting about this. If you look at some of the experiences with the recent extreme weather events, there are some very simple engineering changes that could have been built in. A lot of the associated costs and economic repercussions of those events would have been mitigated. So for example, how you attach a bridge to its moorings, the height of the bridge, in terms of insurance exposure of homes, do you have a backflow check valve. There are many, many simple things that are sort of low cost that can help mitigate that exposure. So that is part of the adaptation focus.

Mr. TONKO. You know, I had witnessed in my district a couple of years ago Irene and Lee, and the exponentially increased volume of water flowing through some of the creek beds, and so as we displace this infrastructure with the ravages of Mother Nature, it became imperative, I believe, for government to build back intelligently, effectively, and to build the same stretch, same span or same height on a bridge would just be wasted money. So it is interesting to hear you say that.

What recommendations do you have for us to address the high risk of climate change?

Mr. TRIMBLE. With that, I may have exhausted my knowledge. I know we have several reports dealing with adaptation to climate change, and I know we have made recommendations to the Administration on coordinating Federal response to climate change sort of at the Executive Office of the President level, to coordinate policies for each agency. I know there has been a lot of action in that regard.

Mr. MURPHY. Is your mic on?

Mr. TONKO. Under Secretary, growing threats of climate change, critical government infrastructure could be at risk. What is DOE doing or what does it hope to do to protect critical infrastructure and more generally to mitigate the effects of climate change?

Mr. PONEMAN. This is a huge challenge, Congressman. We are working on it not only in terms of our own enterprise, but we are, as you know, responsible as the sector-specific agency for homeland protection for protecting the electric grid, the natural gas pipeline

system and so forth. We have been from the first day of—actually from before Hurricane Sandy striking at the center of the Federal effort working very closely with FEMA and with the President to make sure that we are taking those steps first on the mitigation side so that we can reduce the risks of these raging storms and floods the President has alluded to, but also we are working in terms of the area of New York and New Jersey reconstruction, smart grid, distributed generation, micro grids so that you can have a self-healing grid in the case of a devastating storm so that the critical places like hospitals and gas stations and places like that actually are able to respond better.

It would be hard for me to exaggerate, sir, the amount of time and effort that this is taking. It is a much larger chunk of our effort in the Department that in the past, precisely because the problem has become so much greater.

Mr. TONKO. All right. The ounce of prevention here could be a pound of cure when you look at the comeback and disaster aid monies that are required not only to restore and rebuild but to do it effectively and intelligently.

Mr. PONEMAN. Absolutely.

Mr. TONKO. I thank you very much.

Mr. MURPHY. I thank the gentleman. The gentleman yields back. Now Mr. Scalise is recognized for 5 minutes.

Mr. SCALISE. Thank you, Mr. Chairman. I appreciate you having the hearing, and I appreciate our witnesses coming to testify.

When we got the reports back, and you all have addressed a number of the items and the problems that were identified, but when you look at the overall DOE budget, you see that 90 percent of the budget is, in essence, contractors. You know, when you look at the agencies that have addressed some of the problems, the two agencies that were still remaining within DOE that were still considered high risk have over 64 percent of the budget, so there is still a lot of the budget that is still out there, and one of the points I want to bring up, and I will start with Mr. Friedman, is going back to 2007, DOE and NNSA have required contractors to implement a self-assessment strategy to identify deficiencies. I want to ask you how you feel that process is working where you are in essence allowing the contractors to assess themselves to identify deficiencies, considering there is such a large percentage of the overall DOE budget that is going towards contractors. How does this process work? Is that the best method to get us the efficiencies that we are looking for?

Mr. FRIEDMAN. Well, we issued a report on that, Mr. Scalise, several months ago on the contractor assurance process, and frankly, we think it is not ripe and it is not mature and therefore it is not as effective as it needs to be to satisfy basic requirements to protect the interest of the U.S. taxpayers. There was a disconnect, for example, between contractor metrics and the pay-for-performance mechanism that was in place. There were a number of other weaknesses that we identified in that report. So does it have promise? I guess it has potential, but at this point we don't think the Department nor NNSA are there.

Mr. SCALISE. I want Mr. Poneman to be able to address this as well. How do you plan on addressing those deficiencies that were outlined in that report?

Mr. PONEMAN. Congressman, I take a very old-fashioned view of this. It is true, and you know, one should note, this committee has noted several times, our national security imperative, this structure goes literally back to the Manhattan Project. This is how it was set up because President Roosevelt understood that he didn't know how to have the chemistry and physics and so forth. So it started a long time ago. But my view is still the same one that you would have if you are building a house: the contractor has got the expertise but you are the owner. That is what GOCO means: government owned, contractor operated. What we need to do, Congressman, in my judgment is to make sure that as an owner, just like any owner would in a house situation, you have got the expertise to hold the contractor accountable, and the mechanisms that we are talking about in this set of reforms in addition to the things we have been trying to do in terms of contract management, in terms of transparency of metrics that come out of their performance are intended to put us in that position to be a smart owner.

Mr. SCALISE. And Mr. Trimble, do you have any follow-up on what this says about the DOE's ability to rely on contractors for self-assessment?

Mr. TRIMBLE. Well, we have ongoing work on the contractor assurance model. Right now we also have an ongoing review looking at the security reforms. Both those are in process, so we will have more to add later. I think as the Inspector General notes, we have observed some of the problems, and I think in addition to the Y-12 incident, there was a case at Livermore where in 2009 the DOE found—gave the security force there one of its lowest ratings, and this was 6 months earlier than that inspection the local site office had given a 100 percent rating. So again, it is a matter of how do you execute this and can the system be made to work, and I think notably since Y-12, you know, the DOE has backed off from that and has taken a new approach, and that is part of what we are looking at in our new review.

Mr. SCALISE. Thanks. My last—

Mr. FRIEDMAN. Mr. Scalise, could I just amplify on my comment earlier?

Mr. SCALISE. Yes, if you can do it real quickly.

Mr. FRIEDMAN. I will. And the answer, it seems to me, is there nothing wrong with contractor self-assessment as long as there is adequate government validation.

Mr. SCALISE. Yes, there has got to be some kind of extra layer of somebody looking over the shoulder, and two eyes are better than one, especially when one of those sets of eyes is the person looking at themselves in the mirror. I want to make sure there is another set of eyes checking that.

I want to talk about cost estimates because that has been a problem, getting cost estimates right, and both Mr. Friedman and Mr. Trimble, you have indicated the need to develop realistic timetables and baselines to try to address that, but you have also talked about trying to break up these larger projects into smaller chunks, you know, whatever the terminology you are using is. Can you do that,

and can you still get reliable baselines and cost estimates as you are going forward? How do you plan on doing that? I would ask Mr. Poneman or Mr. Trimble.

Mr. PONEMAN. Well, yes, sir, Congressman, that precise GAO recommendation we followed, and because we followed it, I think that is one of things that led to better performance that led us to get out from under the high-risk list for our projects less than \$750 million. Yes, you can sir. Under Order 413, you can have cost estimates at each of our gates of our capital construction projects, mission identification, selection of technology and so on, and that is what we have got to do.

Mr. BURGESS [presiding]. The gentleman's time is expired.

Mr. SCALISE. Thank you. I am out of time. I yield back the balance.

Mr. BURGESS. I recognize the gentlelady from North Carolina, 5 minutes for your questions, please.

Mrs. ELLMERS. Thank you, Mr. Chairman, and thank you to our panel for being here today.

Mr. Trimble, you indicated in your opening statement that even in recent work concerning the DOE's management of projects smaller than \$750 million, about 30 or so projects did not provide sufficient information and documentation for an assessment of their performance. Can you explain why this is significant and what your feelings are on that?

Mr. TRIMBLE. I think this is an issue we have discussed with the Department and they have acknowledged and agreed to work on this, but it goes back to the justification and the paper behind the decisions, and I think this issue has come up in another context, but if you don't have the information and the file on which the decisions are based, it is hard to imagine from an outsider's perspective how the decision was made in the first place and was it made for the right reasons, but it is also impossible to validate the decisions that were made.

Mrs. ELLMERS. So it really seems like there is really not a process of full evaluation?

Mr. TRIMBLE. Or there is a process but it is not being followed.

Mrs. ELLMERS. I see. So you believe the tools are there, it just isn't necessarily—

Mr. TRIMBLE. Not necessarily followed in all cases.

Mrs. ELLMERS. OK. Do you see any other area where lack of information is a hindrance in information gathering in regard to contractors?

Mr. TRIMBLE. Well, I mean, there is lots of—this could go in a lot of different directions. I think one of the questions that comes up quite often is, DOE uses an earned value management system to track the performance of contractors. Every time we go through where there is a re-baselining, it is sort of all your road signs from tracking the progress until the project gets suspended because you have to re-baseline it, and so your milestones for tracking the performance of that contractor sort of get put on hold. But since this process can take a year, two years, 18 months—

Mrs. ELLMERS. That time—

Mr. TRIMBLE [continuing]. You are sort of flying blind for a little while. Now, they take measures to address that, but that is a significant——

Mrs. ELLMERS. And time is money. I have used that recently so many times.

Now, does this also relate to contractor assurance programs? I mean, is this all related?

Mr. TRIMBLE. It is not directly related. It is an enabling issue in terms of more information and the quality and the robustness of your information would support any system.

Mrs. ELLMERS. Thank you, Mr. Trimble.

Mr. Deputy Secretary, it looks like you want to make a comment about that.

Mr. PONEMAN. No. I have not heard Mr. Trimble speak to this fact before but he has identified a very important problem, which is exactly that. When your project goes off its baseline, this system that is set up to clock it, it basically comes useless to you, and that is the point of maximum danger to have unrestricted cost growth and losing control over projects. So we to a first order have got to put a tourniquet on that particular problem and then we need to have a systemic fix.

Mrs. ELLMERS. Suggestions on a systemic fix?

Mr. PONEMAN. Well, look, to me, it all comes down to real-time from-the-ground data with the minimum amount of human intervention in uploading from system to system to system. We need to know how much pipe is getting laid per day. We have to know what valves are going on, and to keep track where the big subcontracted components are coming in, where is that on schedule, even if we are between two baselines, and we just have got to get a set of metrics and a way to measure that we can monitor real time.

Mrs. ELLMERS. Mr. Friedman, would you like to expand on that?

Mr. FRIEDMAN. No, but I think the issue with regard to getting off baseline and that interregnum before you get back on baseline is what we have found to be a very, very dangerous period, and it sometimes lasts far too long. So compressing that period would be ideal as far as we were concerned. In other words, once you find you are off baseline, re-baseline the entire package, have a changed control system that makes sense, so that you have made the whole system rational going forward. Otherwise we lose the progress that we have made in terms of controlling the project.

Mrs. ELLMERS. Great. Well, thank you.

Mr. Chairman, I yield back the remainder of my time. I think that was an excellent discussion.

Mr. MURPHY. The gentlelady yields back. Thank you. I now recognize Mr. Johnson of Ohio.

Mr. JOHNSON. Thank you, Mr. Chairman, and I too want to thank our panelists for being here this morning.

Mr. Poneman, can you please explain the difference between the Department-wide mission support offices and program offices?

Mr. PONEMAN. Yes, sir. The program offices are the ones that are dedicated to the nameplate mission, so maintaining a safe, secure and effective arsenal, making scientific breakthroughs, transforming our energy economy, cleaning up legacy waste. The support functions are all the things that you need to make that stuff work

so that you do it legally, financially responsibly with adequate attention to safety and security. Those are enabling elements that support the mission.

Mr. JOHNSON. OK. How do these mission support offices work to ensure that management practices and especially cost estimating are consistent and effective across the Department?

Mr. PONEMAN. Well, two points, Congressman. So far, we took some of the elements that were in our earlier organization where we had a procurement office separate from the contract management office because those were sources of expertise on this very point of cost estimation, and we have merged those in a unified office under a very strong leader. But secondly, Congressman, the reorganization that we have described here today is intended to give that office the kind of support at the senior executive level of Under Secretary to make sure that those disciplines can apply enterprise-wide.

Mr. JOHNSON. OK. What authority do mission support offices or the new Under Secretary managing the offices, for that matter, what authority do they have to tell program offices what to do when those offices operate under the authority of another Under Secretary?

Mr. PONEMAN. Well, of course, all of these authorities flow out of our statute, and under the authority that goes to the Secretary, all roads lead up to the Secretary and to the Deputy Secretary. So I can assure you, Congressman, that when I hear from my health and safety people that a program office has a problem, the program office may not disregard that. We are one enterprise, and I have often said in our team, the mission elements have got to own support, they have to feel that they own the security, fiscal responsibility, but the support offices have to feel that they own the mission as well and so we try to get that kind of a cross cut.

Mr. JOHNSON. I certainly understand that that is how it should work in principle, but my 26 ½ years in the Air Force and working with major program offices and being a program manager myself, yes, all roads may lead to the top but if they're not going down the same street with responsibility and accountability aligned, that creates dysfunction, and it basically then becomes a personality-driven organization rather than a process-driven organization.

Mr. PONEMAN. Congressman, that is a very important insight there. One of my early lessons in this is when I was assisting Mr. Lee Hamilton and Senator Baker when we were asked by Secretary Richardson to look at the hard drive lost at Los Alamos back in 1999, that is what we found. We found that the organizations that were committed to the missions did not really feel that personal responsibility for safety and security that was essential to avoid exactly the problem you described.

Mr. JOHNSON. Sure. Do you think that this might create more problems by stovepiping mission support?

Mr. PONEMAN. Oh, to the contrary, Congressman. I think what we are fighting against, in other words, we believe that this reorganization is going to synthesize and bring together mission and support in a much better way than has been done before. We wouldn't do this reorganization otherwise.

Mr. JOHNSON. It doesn't appear that the Chief Financial Officer is in this new structure. Is the CFO an important mission support office, and does the CFO have more mission support authority than the management office or the CIO, for example?

Mr. PONEMAN. Well, the CFO, Congressman, is under the Under Secretary for Performance and Management so that would be right alongside the other mission support offices such as Management and Administration, so that is—obviously the CFO has huge enterprise-wide responsibilities and it is very, very important but in terms of the structure, it is embedded inside that Under Secretary office.

Mr. JOHNSON. I associate my same concerns that I previously mentioned. You know, at least in the corporate world, if all money decisions don't flow through the CFO, and you have those stovepiped organizations, that makes it difficult as well.

Mr. Friedman, you indicated that Federal staffing must be sufficient in terms of size and expertise to provide effective control and project oversight so that projects have focused, empowered and consistent Federal project management leadership throughout their lifecycle. Regarding expertise—and I have run out of time—what deficiencies have you observed in expertise over the years?

Mr. FRIEDMAN. Well, as a general point, Congressman Johnson, we have found that the Federal managers did not feel they could exercise the necessary oversight over the contractors because they felt the contractors were so far better prepared for the job and the task that they faced. So certainly they need to be recognized professions. They need to get recognition within the Department and outside the Department, and the contractors need to understand that they're dealing with people on par who are prepared to take necessary actions to ensure the government's interest is protected. In terms of personal expertise, I don't believe we have found that people were inadequately trained on a personal basis.

Mr. JOHNSON. All right. Thank you, Mr. Chairman. I yield back.

Mr. MURPHY. The gentleman's time is expired. Now to the gentlelady from Tennessee, home to many Energy projects, Ms. Blackburn.

Mrs. BLACKBURN. That is exactly right, and I welcome you all, and Secretary Poneman, I want to come to you and talk a little bit about Y-12, and we all know that April 29th, the GAO upheld a procurement protest regarding the combined contract, therefore, the National Security Complex and Pantex plan, and it was a \$22 billion over 10 years contract. You are familiar with that?

Mr. PONEMAN. Yes, Congresswoman, but as I testified a little earlier today, since that contract action is still under review, we will not be able to in this session comment in detail about the workings of that.

Mrs. BLACKBURN. All right. Well, I appreciate that, and I appreciate that there was a desire to get a \$3.27 billion savings in that contract. I think that what I would like to know is, how can our committee be assured that NNSA's nuclear production mission can be safety and effectively carried out under the big cost savings requirement of that type of procurement? What is the guarantee that you can give us?

Mr. PONEMAN. Well, I can tell you, Congresswoman, that we are operating under presidential direction in terms of what we need to do modernize and recapitalize the complex. We have an extraordinarily detailed stockpile stewardship management plan, and of course, given the limitations under the Budget Control Act and the sequestration, we need to make sure that we make every dollar count towards that mission, and you have the full attention of the Secretary and myself and the NNSA to that end, and of course, this has to be carried out through these contracts that you are talking about.

Mrs. BLACKBURN. Let me ask you this. As you look at what has transpired in this process, has there been any thought given to revisiting the premise of the RFP when you are looking at some of these contracts? Have you all, or Mr. Friedman, have you all given any thought to that? Mr. Poneman first.

Mr. PONEMAN. Well, again, Congresswoman, I don't think that I am permitted to speak to the ins and outs of the RFP since it is still under consideration, but what I can tell you is that we are always looking at those things that we can do to do the mission of the Department for the President and the Nation safely and securely and in a manner that is cost-effective, and that would always inform any RFP that we have.

Mrs. BLACKBURN. Mr. Friedman?

Mr. FRIEDMAN. Congresswoman, I don't really think we have anything to add. I don't think we have looked at that with any specificity.

Mrs. BLACKBURN. OK. I appreciate that. I think that it is fair to say, it is an issue that is tremendously important to us. We have a lot of concerns about sacrificing the mission for the cost savings. We have a problem with the possibility of the Department having failed to verify the validity of the cost savings. We think that that as something that when you look at an item that is a critical mission, that it does raise concern for us, so those of us in Tennessee will continue to keep a close eye on this.

And Mr. Poneman, I will just say, I appreciated your comment about needing a systemic fix to how we approach some of this, and being able to work through real-time data. As you look at a complex like the Y-12 complex, we can see where something of that nature might be helpful, and what we would like to do is to yield a better outcome from the work that is done, and then be able to quantify and achieve some savings through that process, through efficiencies, through technology transfer, things of that nature, that will allow a little bit more efficiency.

I appreciate that, and Mr. Chairman, I will yield my time back.

Mr. MURPHY. I thank the gentlelady. We were hoping that the chairman of the full committee would be here because he found his documents from the 1990s when he asked Department of Energy a number of questions before about some reorganization, and I think he wanted to come and get an update of what has happened in the last 20 years or so. But unfortunately, he got tied up, but he will submit those. Mr. Poneman?

Mr. PONEMAN. Mr. Murphy, if I might, I would like to make a slight, before we all break, amendment. In discussing with Mr. Johnson, who I know is not here now, the CFO's office, I thought

it was in the Under Secretaryship but it is of such breadth along with GC and others that that one actually is above the fray, so to speak, so I just want to—we will get more a detailed answer for the record but I didn't want to leave you all with the wrong impression here, so I just wanted to make that clarification of my earlier comment.

Mr. MURPHY. I appreciate that. Overall, then, we will be submitting other questions to you. We ask for a timely response. Members are asked to get questions to us within 10 days.

And also, I ask unanimous consent that the written opening statements of other members be introduced into the record. So without objection, we will do that.

So I would like to thank the witnesses today, and again, as members get more questions to you, we would all appreciate a proper response. Thank you so much for being here today, and I wish you all the best in getting things working over at the Department of Energy, and with that, this hearing is adjourned.

[Whereupon, at 11:45 a.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

**Opening Statement of the Honorable Fred Upton
Subcommittee on Oversight and Investigations
Hearing on "Department of Energy Oversight: What is Necessary to Improve
Project Management and Mission Performance?"
July 24, 2013**

(As Prepared for Delivery)

As chairman, one of my priorities is to ensure the agencies we oversee are responsive to – and reflective of – our current economic and technological realities. In other words, we want a governing framework based on today's needs, not the antiquated priorities from decades ago. Today we take a look at plans for a new management structure and other changes at the Department of Energy announced last week by Secretary Moniz. Our question is, will these reforms help transform DOE for the innovation era?

DOE has recently experienced a number of management challenges, particularly with regard to its stewardship of the nuclear weapons programs and nuclear cleanup. These challenges – and the tremendous risks to the public from failure to address them – are not new. During my time as Oversight Subcommittee Chairman 14 years ago, we took a hard look at agency failures in security and project management, pressuring the agency to reform. Some reforms have worked, and some clearly have not taken hold.

The big lesson is that the agency's safety, security, and contract management problems span administrations and Congresses. From my experience, and as our witnesses will explain, improving DOE's performance requires long, sustained attention to ensure lasting improvement in agency performance.

Today's oversight is especially important because of the new leadership of Secretary Moniz. The secretary has been involved in this Department's management and performance challenges before, from his time as Under Secretary in the late 1990s. From my conversations with him, he understands the challenges at hand. I look forward to the testimony from Deputy Secretary Poneman, who will explain how he and Secretary Moniz want to tackle these challenges and how they will ensure these plans work as intended.

Getting project and mission execution right is vital for this important agency to serve the American public. As our oversight continues, we are also going to have to ask bigger questions in this enduring effort. In 1995, I made similar remarks before the Energy and Power Subcommittee as we examined the future of the DOE. Eighteen years ago, I expressed my concern that portions of the department were built around outdated assumptions of energy scarcity that no longer existed. Even more so today, DOE operates in a world that is vastly different from the bleak energy outlook of the 1970s. It also operates in a world where nuclear commerce takes place in a worldwide competitive marketplace, and where nuclear risks are more dispersed.

We need to start discussing whether the agency is structured and able to adapt to the realities of this nation's very bright energy picture. DOE has significant responsibilities that will not and should not go away; the agency must be poised to take on new responsibilities that best serve the energy, environmental, and security needs of the nation. But we also must acknowledge that if we were to start from a clean slate, there is no question an Energy Department for this new era of abundance would hardly resemble the Department of today. This committee's job will be to ensure the department is managed to meet these responsibilities and structured to ensure they are executed in the best interest of the American taxpayer. This hearing is an initial step in this important work.

###



THE COMMITTEE ON ENERGY AND COMMERCE
MEMORANDUM

July 22, 2013

TO: Members, Subcommittee on Oversight and Investigations

FROM: Committee Majority Staff

RE: Hearing on "Department of Energy Oversight: What is Necessary to Improve Project Management and Mission Performance?"

On Wednesday, July 24, 2013, at 10:00 a.m. in room 2322 Rayburn House Office Building, the Subcommittee on Oversight and Investigations will hold a hearing entitled "Department of Energy Oversight: What is Necessary to Improve Project Management and Mission Performance?" As part of the Committee's ongoing oversight of the Department of Energy (DOE), this hearing will examine the Secretary of Energy's plans for reorganizing DOE's management structure, with a focus on how proposed changes will address key management and performance challenges that confront the agency.

I. WITNESSES

Daniel B. Poneman
 Deputy Secretary
 U.S. Department of Energy

Gregory H. Friedman
 Inspector General
 U.S. Department of Energy

David C. Trimble
 Director, Natural Resources and Environment Team
 Government Accountability Office

II. BACKGROUND

The U.S. Department of Energy (DOE) traces its origins, and its core scientific and technological missions, to the World War II Manhattan Project and subsequently to the Atomic Energy Act of 1946, amended in 1954.¹ Over time, the missions expanded into what developed

¹ See Atomic Energy Act of 1954 (42 U.S.C. § 2011 et seq.).

Majority Memorandum for July 24, 2013, Oversight and Investigations Subcommittee Hearing
Page 2

into a sprawling scientific and industrial complex of laboratories and other facilities across the nation. During the energy crises of the 1970s, the Atomic Energy Commission – a predecessor agency to DOE – was dissolved and the Energy Research and Development Administration took on management of the scientific research, nuclear weapons development, and an expanded portfolio of energy development programs. DOE in its current form was established as a Cabinet agency in 1977 pursuant to the Department of Energy Organization Act. The new agency consolidated the core atomic energy and R&D programs and responsibilities with various federal energy-related agencies into a single department,² largely to unify federal energy research, policy-making, and information development under one agency umbrella.

DOE currently engages in a broad range of national security, scientific, and environmental activities, including maintenance of the nation's nuclear weapons program, nuclear propulsion work for the U.S. Navy, environmental cleanup of the nuclear weapons complex, nuclear waste management and disposal, as well as promotion of scientific and technical innovation, energy conservation, and energy-related research, and other activities.³ The agency is comprised of 10 program offices, 13 staff offices, 9 operations offices, 21 lab and technology centers, 4 power marketing administrations, as well as the Energy Information Administration and the National Nuclear Security Administration. It maintains approximately 80 laboratories, sites, and facilities across the United States and seven international offices. It has approximately 16,000 federal employees and more than 92,000 contractors.

DOE is the largest non-Defense Department contracting agency in the Federal government. It relies primarily on contractors to carry out its diverse missions, including to operate its national laboratories and other facilities and to conduct environmental cleanup, which account collectively for about 90 percent of an annual budget that exceeds \$26 billion. Many of the challenges confronting DOE's mission fulfillment – project delays and cost overruns, safety and security deficiencies – derive from the essential structure and organizational philosophy of the agency, in which the missions are primarily performed in the field by contractors at the labs and cleanup sites to conduct the agency's often high-risk, technically unique, and complex projects.

As a result of the ongoing challenges, since 1990 the Government Accountability Office (GAO) has designated DOE contract management as a “high risk” area because DOE's record of inadequate management and oversight of contractors has left the department vulnerable to fraud, waste, abuse, and mismanagement. DOE has made progress in addressing this high risk; GAO removed the designation from the Office of Science in January 2009. GAO now designates two DOE program elements as high risk – the Office of Environmental Management (EM) and the National Nuclear Security Administration (NNSA). These two program elements account for about 64 percent of the agency's annual budget. (The Office of Science accounts for another 20 percent of the budget, with the remaining divided among energy programs, mission support, Power Marketing Administrations, etc.)

In light of GAO's high risk listing, DOE reported its root cause analysis of systemic challenges to planning and management in 2008. By an overwhelming margin, according to the

² See Department of Energy Organization Act (August 4, 1977); see also 42 U.S.C. Chapter 84.

³ For links to the offices and descriptions of activities, see DOE Program Offices, Labs & Technology Centers, Power Marketing Administration, Operations Offices, Other Agencies and Staff Offices.

Majority Memorandum for July 24, 2013, Oversight and Investigations Subcommittee Hearing
Page 3

report.⁴ DOE's top challenge was it could not complete front-end planning before establishing project baselines. Since that time, DOE has instituted a corrective action plan to take steps necessary for removal from the GAO high risk list. Although progress has been made to improve performance, a total of 12 projects -- presently estimated to total \$19 billion in costs--are either at risk of breaching performance baselines or expected to breach performance baselines.⁵

Given DOE's national security, cleanup, and related high-risk missions, ensuring implementation of the necessary safeguards and security measures as well as the safety and public health protections, has long posed tremendous contract administration and project management challenges for the department, particularly in NNSA but also in EM and Office of Science operations. Testimony at recent Subcommittee on Oversight and Investigations hearings have highlighted DOE governance and management challenges that contributed to security and safety culture breakdowns, most notably demonstrated by the serious security breach at the Y-12 National Security Complex.⁶

The Department of Energy Inspector General has also identified continued management and performance challenges at the agency, including operation efficiency and cost savings, contract and financial assistance award management, environmental cleanup, human capital management, safeguards and security, among others. Moreover, the Inspector General has concluded that Federal budgetary concerns place efforts to optimize agency operations and reduce costs the "preeminent management challenge facing the Department."⁷

Against this backdrop, Secretary of Energy Ernest Moniz testified before the Subcommittee on Energy and Power on June 13, 2013 that he would be addressing management and performance of the Department as one of his top priorities. In an announcement to Department Employees this past Thursday, July 18, 2013, the Secretary outlined his plans for reorganization of DOE's management structure. These plans include consolidating Department "mission support functions" and EM programs under a new Under Secretary for Management and Performance and expanding the current position of Under Secretary for Science to encompass both science and energy missions, so that a single Under Secretary oversees basic science, applied research, technology demonstration, and deployment, *i.e.*, missions performed by the offices of fossil energy, nuclear energy, electric deliver and energy reliability, etc.

More specifics on the plan will be provided in DOE's forthcoming written testimony. The hearing will provide an opportunity to examine whether and how the reorganization will help DOE management address the key challenges confronting the agency that inhibit its priorities, and that raise risks to public health, national security, and taxpayer funding.

⁴ See Root Cause Analysis: Contract and Project Management, DOE, 2008 and United States Department of Energy: Corporate Overview, 2012.

⁵ See June 2013 Project Dashboard. The largest of these projects include the Waste Treatment and Immobilization Plant (\$12.2 billion) at the Hanford Site, WA, the Salt Waste Processing Facility (\$1.3 billion) and Mixed Oxide Fuel Fabrication Facility (\$4.8 billion) at the Savannah River Site, SC.

⁶ See, Subcommittee on Oversight and Investigations hearings September 12, 2012 and March 13, 2013.

⁷ See, for example, Management Challenges at the Department of Energy – Fiscal Year 2013, Office of Inspector General (IG-0874).

Majority Memorandum for July 24, 2013, Oversight and Investigations Subcommittee Hearing
Page 4

III. ISSUES

The following issues may be examined at the hearing:

- How will reorganization and performance reforms address identified management challenges and the GAO High Risk list?
- How will reform and reorganization efforts address safety and security challenges across the DOE enterprise?
- What is necessary to measure progress on DOE performance?
- What is necessary to sustain improvements in DOE contractor performance?

IV. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Peter Spencer or Karen Christian of the Committee staff at (202) 225-2927.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115

Majority (209) 225-2407
Minority (202) 225-3841

August 22, 2013

The Honorable Daniel B. Poneman
Deputy Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Deputy Secretary Poneman:

Thank you for appearing before the Subcommittee on Oversight and Investigations on Wednesday, July 24, 2013, to testify at the hearing entitled "Department of Energy Oversight: What is Necessary to Improve Project Management and Mission Performance?"

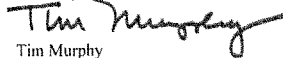
Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

Also attached are Member requests made during the hearing. The format of your responses to these requests should follow the same format as your responses to the additional questions for the record.

To facilitate the printing of the hearing record, please respond to these questions and requests by the close of business on Thursday, September 5, 2013. Your responses should be mailed to Brittany Havens, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to brittany.havens@mail.house.gov.

Thank you again for appearing before the Subcommittee.

Sincerely,



Tim Murphy
Chairman
Subcommittee on Oversight and Investigations

cc: Diana DeGette, Ranking Member, Subcommittee on Oversight and Investigations

Attachments



Department of Energy

Washington, DC 20585

October 22, 2013

The Honorable Tim Murphy
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

On July 24, 2013, Daniel B. Poneman, Deputy Secretary, testified regarding "Department of Energy Oversight: What is Necessary to Improve Project Management and Mission Performance?"

Enclosed are the answers to 14 questions that were submitted by Representative Butterfield and you.

Also, the three Inserts for the Record that were requested by Representative Johnson and you, are enclosed to complete the hearing record.

If we can be of further assistance, please have your staff contact our Congressional Hearing Coordinator, Lillian Owen at (202) 586-2031.

Sincerely,

A handwritten signature in black ink, reading "Christopher E. Davis", is positioned above the typed name.

Christopher E. Davis
Deputy Assistant Secretary
for Congressional Affairs
Congressional and Intergovernmental Affairs

Enclosures

cc: The Honorable Diana DeGette, Ranking Member



Printed with soy ink on recycled paper

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

Q1. The White House announced it would nominate NASA chief financial officer Beth Robinson for the newly created position of Under Secretary for Management and Performance to oversee DOE contracts. A Washington Times article from July 23, 2013 detailed how cost overruns at NASA grew six-fold during Ms. Robinson's tenure. In light of this news report, what assurances can you provide that the new Undersecretary for Management and Performance will be able to manage DOE spending on contracts effectively?

A1. Dr. Robinson has extensive experience in procurement and project management, including experience and insight from her time at NASA. The Department of Energy has improved the effectiveness and efficiency of the Department's mission support functions and the management of major capital projects and contracts and will continue to do so under Elizabeth Robinson's leadership if she is confirmed as Under Secretary for Management and Performance. Reducing the cost of doing business within the Department and improving project management will enable us to reallocate resources toward our mission objectives in national security, science and energy.

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

- Q2. Renewables such as wind and solar account for less than 4% of power, but received almost a billion dollars in direct research money. At the same time, the Administration proposed spending much less than half that amount on clean fossil fuel technologies even though fossil energy produces more than 80% of the power in the United States. Under Secretary Moniz, will fossil energy research and development still remain a priority for and the Department of Energy?**
- A2. Fossil energy research and development is a priority for the Department of Energy. As Dr. Moniz stated, in his July 30 visit to the National Energy Technology Laboratory this year, "We are about preparing our future so that all of our fuels have an important role." To support this, the Administration has committed nearly \$6 billion to clean coal technologies, including carbon capture and sequestration and is preparing to issue an \$8 billion loan guarantee solicitation for advanced fossil energy technologies.

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

Q3. Please describe the research into carbon capture sequestration and clean coal technologies DOE conducts through the National Energy Technology Laboratory and what plans DOE has for continuing or increasing research on this front?

A3. DOE's research and development portfolio includes a diverse set of technologies and pathways that are focused on capturing CO₂ emissions and storing them permanently or utilizing them in a beneficial manner, and developing advanced technologies to more efficiently and cleanly burn fossil fuels for power generation while facilitating carbon capture and storage. These technologies include post-, pre-, and oxy-combustion carbon capture; carbon storage development such as small- and large-scale injection tests, monitoring technologies, simulation and risk assessment tools, and carbon utilization options; gasification, turbines, and fuel cells for advanced power generation; and crosscutting activities such as computational modeling and materials development. The National Energy Technology Laboratory's (NETL) scientists and engineers conduct research in each of these areas to support programmatic goals and objectives while also conducting cutting edge R&D that identifies new opportunities and technologies to utilize our nation's fossil energy resources cleanly, efficiently, and in a cost-effective manner. DOE plans to continue R&D in these areas as part of the President's "all of the above" energy strategy as well as the Climate Action Plan.

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

Q4. Please provide an update on the progress of contracts awarded through the Research Partnership to Secure Energy for America (RPSEA), as well as the financial report for RPSEA in FY2012, including but not limited to overhead and operational expenses.

A.4 Over the past six years (2007 – present), over 150 projects have been awarded, 69 of which have been completed, and 81 are still active. RPSEA is currently reviewing proposals submitted in response to the 2012 Unconventional Resources Program request for proposals (RFP) and the 2012 Small Producers Program RFP. Selections are anticipated to be made in early October. RPSEA also has two 2012 Ultra-Deepwater Program RFPs open soliciting proposals for 17 technical areas. Selections from those RFPs are anticipated to be made in December/January.

Pursuant to the Energy Policy Act of 2005, a total of \$35.625 million was obligated to the RPSEA contract in FY12, of which \$3.75 million was for administrative/programmatic activities, and \$31.875 million for research activities. RPSEA received \$1 million of the \$3.75 million for administrative activities in December 2011, and received the remaining \$2.75 million on June 5, 2012. These funds were expended by RPSEA from January 2012 through January 2013. The FY12 research funds totaling \$31.875 million were obligated to the RPSEA contract on September 5, 2012. These funds have all been obligated to research subcontracts by RPSEA.

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

- Q5. Please describe in detail the Department's participation in the interagency process(es) to develop social cost of carbon estimates, including when the process(es) were initiated, who was involved and who managed the process both at DOE and for the interagency group, and what records did DOE maintain to memorialize process deliberation and participation?**
- A5. Staff at DOE provided technical input to the Interagency Working Group on the Social Cost of Carbon. The technical update to prior SCC estimates was conducted in order to ensure that DOE and other agencies incorporate the best available peer-reviewed information in evaluating the cost and benefits of rulemakings. For more information about this process, please refer to OIRA Administrator Howard Shelanski's July 18, 2012 testimony in front of the House Oversight and Government Reform Committee's Subcommittee on Energy Policy, Healthcare and Entitlements.

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

- Q6. During the hearing, you described mission support offices under the proposed restructuring, and noted that the Chief Financial Officer was not part of the new structure, but "above the fray, so to speak."**
- a. Does the CFO office have more mission support authority than the management office or the CIO, for example, under the new structure?**
 - b. What authority do these mission support offices have to tell program offices what to do when those offices operate under the authority of another Under Secretary?**
 - c. Explain why this does not create management problems by stove-piping or siloing certain mission support functions within DOE's management structure?**
- A6a.** The Office of the Chief Financial Officer works closely with the Office of the Under Secretary for Management and Performance and the other mission support functions of the Department on the full range of administrative and management issues, particularly insofar as there are budget and financial issues involved. The Office of the Chief Financial Officer's authority is not "more" or "less" than the other management offices, but rather focused on the particular areas of responsibility of the Chief Financial Officer function.
- A6b.** The Deputy Secretary remains the Chief Operating Officer of the Department. We fully anticipate that program offices across the Department, as well as the Offices of Under Secretary for Science and Energy and Under Secretary for National Nuclear Security Administration, will work with the Office of the Under Secretary for Management and Performance and the Office of the Deputy Secretary on the broad range of policy and implementation issues related to the mission support functions of the Department. The

Secretary and the Deputy Secretary retain the authority to establish department-wide policies and direct the implementation as necessary.

- A6c. Rather than stovepiping the mission functions, the reorganization creates a structure in which all the mission support organizations are unified under the Office of the Under Secretary for Management and Performance and can cooperate and work together.

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

Q7. The Secretary is ultimately responsible and accountable for the various missions of the Department. Because of this, does it benefit the Secretary to have staff for certain department-wide functions to provide his eyes and ears (and voice) to ensure he can manage the department's various missions?

a. In the Department of Defense there is a management structure called functional componentry, through which the office of the Secretary's mission support functions -- the CFO, CIO, Human Resources -- communicate with their functional equivalents in the various Defense Department components. Would DOE benefit from such a management approach across the agency, including the NNSA?

b. What are the limits or barriers to implementing such an approach?

A7a. The mission support functions within Office of the Under Secretary for Management and Performance communicate and work on a regular basis with comparable components within DOE program offices, including the NNSA.

A7b. The NNSA Act limits the authority of non-NNSA personnel, including the mission support functions, to direct or exercise authority with regard to the NNSA. The NNSA Act does not, however, limit the ability of the mission support functions to work with the Secretary to establish policies that the Secretary has the authority to establish throughout the Department. The non-NNSA mission support functions communicate with their NNSA counterparts as these policies are developed and on a regular basis on the implementation of these policies and other matters.

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

Q8. To the extent program management of the national laboratories is the responsibility of different DOE offices, how do you ensure such management and oversight is performed consistently across DOE?

- a. What office is responsible for ensuring consistent management attention to the lab contracts and contractors?**
- b. What will be the function of National Laboratory Operations Board and what role, if any, will this entity have concerning the development of consistent metrics for judging laboratory performance?**

A8. The National Laboratory Operations Board will report to the Office of the Under Secretary for Management and Performance and will include representatives from all of the program offices that oversee one or more of the national laboratories. Those program offices will continue to have the primary responsibility for the program direction and oversight of the laboratories. The National Laboratory Policy Council will serve to coordinate and develop consistent policies with regard to the Department of Energy's management of the laboratories. The National Laboratory Operations Board enables the Department to address administrative and operational issues affecting the laboratory system in a coordinated manner using an enterprise-wide approach. The development of consistent metrics for evaluating laboratory performance is a challenge that may be addressed at a policy level by the National Laboratory Policy Council and at an administrative level by the National Laboratory Operating Board.

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

Q9. In a January 2010 report, the Government Accountability Office recommended that, to better ensure DOE is able to develop high-quality project cost estimates, the Secretary of Energy should issue the department's cost-estimating policy and updated guidance of as soon as possible, and ensure that the policy requires that independent cost estimates (ICEs) be conducted for major projects at critical decision (CD) milestones CD-1, CD-2, and CD-3.

a. Explain whether DOE has issued a cost-estimating policy, whether it is standardized across the DOE enterprise, when it was issued, and whether ICEs have been or will be conducted at milestones CD-1, CD-2, and CD-3?

A9. DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, released on November 29, 2010, established cost estimating requirements for Independent Cost Reviews (ICRs) and Independent Cost Estimates (ICEs) at each of the Department's Critical Decision (CD) milestones for acquisition of capital assets across the Department, inclusive of the National Nuclear Security Administration. On May 9, 2011, the Department issued DOE Guide 413.3-21, *Cost Estimating Guide*, which establishes best practices for developing cost estimates by the contractors and project teams. Its purpose is to provide uniform guidance and best practices that describe the methods and procedures recommended for use at DOE in preparing cost estimates across all phases of the Department's capital asset acquisition process. DOE Order 413.3B and DOE Guide 413.3-21 are consistent with, and adopt observations, recommendations, guidance and best practices from GAO audit reports and GAO's *Cost Estimating and Assessment Guide* (e.g., the Twelve Steps of a High Quality Cost Estimating Process).

DOE Order 413.3B, in conjunction with P.L. 112-74 FY2012 Consolidated Appropriations Act, requires DOE's Office of Acquisition and Project Management to

conduct for capital asset projects with a cost of \$100M or greater an ICE or ICR at CD-1, Approve Alternative Selection and Cost Range, an ICE at CD-2, Approve Performance Baseline, and, an ICE at CD-3, Approve Start of Construction/Execution. ICEs have been conducted on a number of capital asset projects to include the National Nuclear Security Administration's Uranium Capability Replacement Project, the Office of Environmental Management's Salt Waste Processing Facility, and the Office of Science's **Linac Coherent Light Source II (LCLS II) Project.**

QUESTIONS FROM REPRESENTATIVE TIM MURPHY

Q10. Explain how DOE works with the U.S. Army Corp of Engineers (USACE) to conduct of independent cost reviews and estimates, and what if any barriers there are to increased use of USACE expertise to enhance DOE project oversight and management. In addition, what are DOE's plans to increase use of USACE independent cost estimating?

A10. The DOE Office of Acquisition and Project Management (OAPM) has retained the US Army Corps of Engineers (USACE) and its cost estimating contractors to augment OAPM capabilities when appropriate for complex DOE nuclear processing plant projects. To mitigate potential barriers, OAPM and USACE signed a memorandum of understanding in 2012 to define this partnership. OAPM, which is responsible for conducting Independent Cost Reviews (ICRs) and Independent Cost Estimates (ICEs) within DOE, is comprised of a professional staff of engineers with extensive project management experience who are also accredited as Certified Cost Professionals by the Association for the Advancement of Cost Engineering International (AACEI). As a result, OAPM is fully capable of conducting credible and high-quality ICEs and ICRs augmented on an as-needed basis with cost estimators, schedulers, risk management specialists, and other subject matter experts obtained from OAPM contractors or USACE contractors (many of which are the same as the OAPM contractors).

QUESTIONS FROM REPRESENTATIVE G.K. BUTTERFIELD

Q1. We've seen a consistent and concerted effort to reduce discretionary non-defense spending, even at the detriment to agency missions and our constituents. Sequestration has negatively affected many agencies but significantly and indiscriminately cutting important, mission critical funding. How has sequester impacted the Department of Energy's ability to achieve its four mission areas of nuclear security, solving the Nation's energy challenges, advancing fundamental science, and environmental stewardship? In what ways has the sequester impacted the ability of DOE in terms of management and oversight?

A1. Sequestration cut nearly \$1.9 billion from the Department of Energy's FY 2013 funding level. This cut reduces the ability of the Department to carry out its work, slows down work already in progress, results in contractor workforce impacts at multiple sites, and defers grants, contracts, and hiring to support planned work.

Over \$300 million was cut from programs supporting critical investments in scientific research and clean energy technologies, including funding for advanced computing systems, climate change research, next-generation manufacturing, fuel-efficient vehicles, renewable energy generation, advanced nuclear reactor designs, sustainable carbon capture technologies, and electric grid modernization and security. Over \$400 million was cut from environmental stewardship programs, resulting in waste retrieval and cleanup schedule delays at sites. Finally, over \$800 million was cut from the National Nuclear Security Administration programs supporting nuclear weapons stockpile stewardship, global nuclear nonproliferation activities, and submarine propulsion system design, resulting in schedule delays and potential cost overruns.

Sequestration has not had a significant impact on federal management and oversight.

QUESTIONS FROM REPRESENTATIVE G.K. BUTTERFIELD

- Q2. Most recently, we saw drastic cuts to DOE funding in the Energy and Water appropriations bill, which passed the House with immense Democratic opposition. The bill cuts funding for FY 14 by 8 percent, and makes drastic cuts to important programs such as nuclear non-proliferation, defense-related environmental management activities, and renewable energy programs. Many of these cuts would be in areas that the GAO and Inspector General have identified need improvement, is that correct? How would these significant cuts to mission-critical programs impact the DOE's ability to make necessary improvements and fulfill the President's vision?**
- A2. The House Energy and Water Appropriations Bill (H.R. 2609) underfunds critical investments in our energy and national security. Reductions in these areas will impact and could multiply issues that the GAO and Inspector General have identified as needing improvement. If enacted, the cuts included in H.R. 2609 will impact mission critical programs and national priorities.

The bill cuts funds that develop our American energy sources to build a clean and secure energy future and leaves US competitiveness at risk in new clean energy markets, such as advanced vehicles, advanced manufacturing, energy efficiency and domestic renewable energy. The bill reduces funding to DOE's Office of Energy Efficiency and Renewable Energy (EERE) by 73% from the request, severely limiting investments in innovative clean energy research and development and providing less weatherization assistance than needed to assist low-income households. Cuts to the Office of Electricity Delivery and Energy Reliability will slow efforts to modernize and secure the electricity grid and the ability to respond to energy emergencies. The bill reduces Advanced Research Projects

Agency-Energy (ARPA-E) funding by 87% compared to the request severely impacting funding to potentially transformative energy research. And, cuts to the Office of Science will eliminate all funding for new grants, likely lead to terminations of ongoing awards, and could reduce or cease operations at all major scientific user facilities. These reductions to DOE's science and energy programs would impact U.S. leadership in research and economic competitiveness.

Funding reductions to DOE will also impact the National Nuclear Security Administration increasing the risk of schedule delays for key components of the nation's nuclear strategy and limiting the ability for Naval Reactors to address current and emerging issues in the fleet. The bill delays the Spent Fuel Handling Recapitalization Project, potentially jeopardizing the operational availability of aircraft carriers and submarines while increasing the project's cost by \$335 million. Reductions to Weapons Activities will weaken facility operations, construction initiatives, and stockpile support activities, all of which directly support the President's nuclear strategy as expressed in the Nuclear Posture Review. If enacted, the bill will undercut DOE's ability to maintain the nuclear stockpile and cut essential national security efforts required to implement nuclear strategy and advance counter-proliferation objectives.

QUESTIONS FROM REPRESENTATIVE G.K. BUTTERFIELD

Q3. I applaud the Department of Energy and the President's ambitious vision for prioritizing climate change reduction and preparing our nuclear capabilities for the future. It is encouraging to see the emphasis on innovation while reorganizing to become more efficient. Under the new reorganization, there will now be a senior policy official dedicated to improving management on a full-time basis, is that correct?

A3. Yes. The Department of Energy has established an Under Secretary for Management and Performance to improve project management and increase the effectiveness and efficiency of our mission support functions across the Department.

Q4. Currently, 90 percent of the Department of Energy's budget of \$26 billion is being allocated to contractors. Will these consolidations improve oversight of contractors and help correct some of the issues raised by GAO and the IG?

A4. Yes. The establishment of the Under Secretary for Management and Performance will allow greater oversight of contractors and improve project management and performance across the Department.

234
235 having the data but making sure you have a system in place to
236 have honest reassessments of that.

237 One other quick question in my time. In your testimony you
238
239 said that President laid out a commonsense plan to reduce the
240 effects of climate change by cutting dangerous carbon pollution,
241 as you put it, increasing the production of clean energy and
242 doubling down on energy efficiency. I noticed the Department
243 released a new rule for microwave oven efficiencies and included
244 a calculation for the social cost of carbon, and I would like to
245 know if the agency considered doing a formal notice and comment
246 to the microwave rule before using this figure. Did anyone in
247 your office participate in any discussions about this social
248 cost of carbon before using it in the DOE microwave rule, and
249 can you please submit to us emails and documents to help us
250 understand why that was done.

251 Mr. {Poneman.} Mr. Chairman, I was present for some
252 discussion of social costs of carbon. I was not--I would have
253 to get back to you with details on how it related to that
254 particular rule.

255 Mr. {Murphy.} That is something this committee is going to
256 want to review in an open and scientific way.

257 Mr. {Poneman.} We would be very happy to supply that.

258
259 Ms. {Castor.} Thank you, Chairman Murphy.

260
261 It is very important and a positive sign that the

COMMITTEE: House Energy and Commerce Committee,
Subcommittee on Energy and Power

HEARING DATE: July 24, 2013

WITNESS: Daniel Poneman
PAGE: 10, LINE: 237-257

INSERT FOR THE RECORD

Staff at DOE provided technical input to the Interagency Working Group on the Social Cost of Carbon. The technical update to prior SCC estimates was conducted in order to ensure that DOE and other agencies incorporate the best available scientific, technical and economic information in evaluating the cost and benefits of rulemakings. For more information about this process, please refer to OIRA Administrator Howard Shelanski's July 18, 2012 testimony in front of the House Oversight and Government Reform Committee's Subcommittee on Energy Policy, Healthcare and Entitlements.

500
501 portfolio was strong. That said, he had a number of very
502 important practical suggestions in terms of transparency,
503 accountability, customer servicing, portfolio management, and
504 many of those have been implemented, point one. Point two, that
505 included making sure we had very highly capable people in the
506 positions. Point three, a lot of those people are very much
507 focused on portfolio management, and there is a brand-new leader
508 of the loan program office, and finally, in this reorganization,
509 Secretary Moniz wants to make sure that the Credit Review Board
510 itself, which sits above the Credit Committee, is strengthened
511 so that we will have the ability in the normal kind of boardroom
512 fashion of doing due diligence on transactions to make sure we
513 bring those kinds of disciplines to bear.

514 Mr. (Griffith.) One of my concerns there was, it appeared
515 that the legal counsel that was being given was seeing--and this
516 is my interpretation, nobody ever said this--saw itself as
517 trying to come up with a legal opinion to justify what the
518 Department of Energy wanted to do as opposed to protecting the
519 American taxpayers, and I would hope that the legal department
520 would see as a part of their duty at the very least is to make
521 sure that what they are doing is lawful because the laws that
522 Congress pass are intended to protect American taxpayers, and
523 the decision to subordinate cost \$170 million to the American
524 taxpayers.

525
526 Mr. {Poneman.} Congressman, I would have to dig back into
527 the details to get the--I would just say my recollection of the
528 legal advice received at the time was there was a higher chance
529 of a higher recovery from a going concern than from a fire sale,
530 and the question at the time that it was presented was whether
531 subordination would meet the statutory requirement that the
532 Secretary was obliged to seek the maximum recovery for the
533 taxpayer. But we can obviously follow up on that.

534 Mr. {Griffith.} I just wanted to know if it was still ongoing.
535 I appreciate that. Thank you very much.

536 Back to you, Deputy Secretary. As a part of this, another
537 issue has been brought to my attention, and I am not going to
538 tell you I am well versed in it, but it does concern me, and
539 that relates to the National Nuclear Security Administration and
540 the National Security Complex and Pantex plant management
541 contracts, and in that process, GAO has said that there was an
542 upheld--they upheld a procurement protest. My concern on that
543 is, is that apparently, according to a press report that has
544 been brought to me, in three instances, the source selection
545 authority at the 11th hour changed some of the criteria, and I
546 know there are all these big companies jockeying for position,
547 but at the 11th hours, three matters were changed and that
548 changed who got the contract. On its face, that doesn't smell
549 right to me. Are you all looking into that matter and trying to

COMMITTEE: House Energy and Commerce Committee,
Subcommittee on Energy and Power

HEARING DATE: July 24, 2013

WITNESS: Daniel Poneman
Page: 21; Line: 514-535

INSERT FOR THE RECORD

At the time of the restructuring, after thorough analysis, DOE concluded that the restructured terms - which would allow completion of the manufacturing facility - offered the greatest likelihood that the loan would be repaid, and was therefore in the best interests of taxpayers. Career officials in LPO, including the office's Chief Counsel, as well as attorneys in DOE's Office of General Counsel, reviewed the proposed restructuring thoroughly and concluded that it was permitted under Title XVII of EPAct, as amended, 42 U.S.C. §§ 16511-16514.

Attachment 2-Member Requests for the Record

The Honorable Tim Murphy

During the hearing, Members asked you to provide additional information for the record, and you indicated that you would provide that information. For your convenience, descriptions of the requested information are provided below.

- Q1. Did anyone in your office participate in any discussions about this social cost of carbon before using it in the DOE microwave rule, and can you please submit to us emails and documents to help us understand why that was done.**
- A1.** Staff at DOE provided technical input to the Interagency Working Group on the Social Cost of Carbon. The technical update to prior SCC estimates was conducted in order to ensure that DOE and other agencies incorporate the best available scientific, technical and economic information in evaluating the cost and benefits of rulemakings. For more information about this process, please refer to OIRA Administrator Howard Shelanski's July 18, 2012 testimony in front of the House Oversight and Government Reform Committee's Subcommittee on Energy Policy, Healthcare and Entitlements.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (2013-2017)
Minority (2013-2015)

August 22, 2013

The Honorable Gregory H. Friedman
Inspector General
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Mr. Friedman:

Thank you for appearing before the Subcommittee on Oversight and Investigations on Wednesday, July 24, 2013, to testify at the hearing entitled "Department of Energy Oversight: What is Necessary to Improve Project Management and Mission Performance?"

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Thursday, September 5, 2013. Your responses should be mailed to Brittany Havens, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to brittany.havens@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Tim Murphy
Chairman
Subcommittee on Oversight and Investigations

cc: Diana DeGette, Ranking Member, Subcommittee on Oversight and Investigations

Attachments



Department of Energy
Washington, DC 20585

August 27, 2013

The Honorable Tim Murphy
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Murphy:

This is in response to your letter dated August 22, 2013, concerning the Subcommittee on Oversight and Investigation's July 24, 2013, hearing entitled "Department of Energy Oversight: What is Necessary to Improve Project Management and Mission Performance?" Enclosed are answers to the questions addressed to me by Congressman Butterfield.

Please do not hesitate to contact me if I may be of further assistance.

Sincerely,

A handwritten signature in black ink, which appears to read "Greg Friedman", is positioned above the printed name and title.

Gregory H. Friedman
Inspector General

Enclosure

cc: The Honorable Diana DeGette, Ranking Member



Printed with soy ink on recycled paper

Questions for the Record Submitted by Congressman Butterfield

1. **Since 90 percent of the DOE's budget is spent on contractors, it is clear that oversight of contractors is an important responsibility of the Department. You mention in your testimony that improvements are needed to ensure that federal staffing is sufficient to provide effective contract and project oversight, is that correct? What impact has sequestration had on the ability of the DOE to provide sufficient staffing for improving oversight of contractors? Will proposed cuts in the Energy and Water Appropriations bill further complicate the ability of DOE to continue to improve contractor oversight?**

As noted in our testimony, sufficient Federal staffing, in terms of size, expertise, and experience, is a central element in providing effective Department contract and project oversight. Our work has highlighted instances where such Federal staffing was, in our judgment, below optimal levels. Although we cannot speak to how the Department will prioritize its work going forward, we are concerned that sequestration and other budget cuts may exacerbate staffing concerns, as your question suggests. Under these circumstances, the Department will have to use available human resource assets as effectively as possible.

2. **The Presidential directive reducing DOE employee travel by 30 percent will go a long way towards saving taxpayers money. However, it seems that most trips – about 85 percent – are taken by contractors. Is it true that the DOE could save up to \$15 million per year by reducing contractor travel by 30 percent? What changes would need to be made to realize these savings?**

Our review determined that if the Department had applied the 30 percent reduction criteria to just the international portion of travel costs incurred by its nearly 100,000 contractors, as much as \$15 million could be saved each year. As we noted in our testimony, while absolute equality between the treatment of Federal and contractor personnel may not be practical, in our view, an across-the-board application of the requirement to reduce travel would be beneficial. In terms of needed changes, some mechanical modifications to the contract terms might be required. Further, the contractors would have to engage in more prioritization of travel requirements to ensure that critically important, mission-essential travel would not be affected.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2827
Minority (202) 225-3641

August 22, 2013

David C. Trimble
Director of Natural Resources and Environment Team
U.S. Government Accountability Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Trimble:

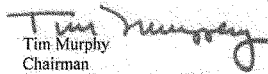
Thank you for appearing before the Subcommittee on Oversight and Investigations on Wednesday, July 24, 2013, to testify at the hearing entitled "Department of Energy Oversight: What is Necessary to Improve Project Management and Mission Performance?"

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Thursday, September 5, 2013. Your responses should be mailed to Brittany Havens, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to brittany.havens@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Tim Murphy
Chairman
Subcommittee on Oversight and Investigations

cc: Diana DeGette, Ranking Member, Subcommittee on Oversight and Investigations

Attachments

QUESTIONS FOR THE RECORD
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
HOUSE COMMITTEE ON ENERGY AND COMMERCE

**Hearing on Department of Energy Oversight: What Is Necessary to Improve
Project Management and Mission Performance?**
July 24, 2013

SUBCOMMITTEE QUESTIONS	2
Government Accountability Office (GAO)	2
1. The Honorable Tim Murphy.....	2
2. The Honorable G.K. Butterfield	3

Subcommittee Questions

Government Accountability Office (GAO)

1. The Honorable Tim Murphy

Mr. Trimble, during the hearing, you expressed that GAO may disagree with DOE about how robust the requirements under directive 413-B are. Would you please elaborate GAO's view on DOE's requirements for cost estimating at critical decision points in project management?

Our disagreement stems from the extent to which DOE aligns its cost estimating practices with the best practices we have identified in our Cost Estimating and Assessment Guide.¹ We reported in 2010 that DOE lacked a cost estimating policy that would, among other things, establish roles and responsibilities for those preparing, reviewing, and updating all types of cost estimates.² We recommended, among other things, that DOE should issue a cost estimating policy that requires DOE and its contractors to generate cost estimates in accordance with best practices, including requiring that independent cost estimates be conducted for major projects at critical decision points 1, 2, and 3.³ DOE revised its project management order in November 2010 to, among other things, require that an independent cost estimate be prepared at critical decision point 2 for projects with total costs of \$100 million or greater.⁴ The revised order left it discretionary as to whether independent cost estimates should be prepared at critical decision points 1 and 3.⁵ These

¹ GAO, *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs*, GAO-09-3SP (Washington, D.C.: March 2009).

² GAO, *Department of Energy: Actions Needed to Develop High-Quality Cost Estimates for Construction and Environmental Cleanup Projects*, GAO-10-199 (Washington, D.C.: Jan. 14, 2010).

³ DOE defines major projects as those with total project costs of \$750 million or greater. DOE's project management order generally requires DOE management to review and approve projects as they pass through a series of critical decision points. The order defines 5 critical decision (CD) points—CD-0: identify project need; CD-1: define the project; CD-2: establish project baseline; CD-3: start construction; CD-4: project completion.

⁴ Department of Energy, Program and Project Management for the Acquisition of Capital Assets, DOE Order 413.3B (Washington, D.C.: Nov. 2010).

⁵ For critical decision point 1, for projects with a total cost of \$100 million or greater, the order allows DOE's Office of Acquisition and Project Management (APM), which is responsible for reviewing capital asset acquisition projects, to conduct either an independent cost estimate or an independent cost review as they deem appropriate. As our cost guide points out, an independent cost review is a less rigorous review. For critical decision 3, for projects with a total cost of \$100 million or greater, the order allows APM to

revisions partially address the issue of independent cost estimates but do not fully align with best practices that propose independent cost estimates should also be prepared for critical decision points 1 and 3. We are conducting a review of the department's and NNSA's cost estimating practices, including a review of the extent to which these practices align with cost estimating best practices, and we plan to report on this ongoing work in December 2013.

2. The Honorable G.K. Butterfield

- a. Mr. Trimble, in your testimony you mentioned situations where workers at NNSA facilities have been reluctant to raise safety problems for fear of retaliation. Does this problem remain? Has the DOE taken sufficient steps to change the procedure of reporting safety concerns? Are adequate whistleblower protections in place for DOE employees and contractors?**

As indicated in our testimony, our observations regarding retaliation were drawn from a recent report from DOE's Office of Health, Safety and Security. We have not independently assessed the extent of this problem, including any actions taken by DOE to change the procedures for reporting safety concerns or for whistleblower protections.

- b. Mr. Trimble, you mention in your testimony that DOE has implemented most of the recommendations made by GAO and you highlighted a number of those. In your opinion, will the reorganization of the DOE with a renewed emphasis on management continue to uphold the GAO's recommendations and improve management and contractor oversight?**

We have not reviewed DOE's organizational changes or the underlying rationale for them, and at this point it is too soon to determine whether the new structure will be effective. That said, DOE must make improvements in the areas of concern identified in our most recent testimony and over the years, irrespective of the department's organizational structure; structural changes in and of themselves may not be helpful. Moreover, the past improvements on which we have reported—including those that led to

develop an independent cost estimate if warranted by risk and performance indicators or as designated by the DOE manager designated with the responsibility for the project.

the narrowed focus of our high-risk designation of DOE's contract management—took place in a context of strong commitment and top leadership support for improving contract and project management. Therefore, we are encouraged by DOE's statement that the reorganization will bring with it a renewed emphasis on continuing to improve the department's project and contract management. We will continue to monitor DOE's implementation of the efforts it undertakes to make improvements in these areas.

